Environment Canada

2006–2007

Departmental Performance Report

John Baird
Minister of the Environment

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SECTION I: DEPARTMENTAL OVERVIEW

Minister's Message

As Minister of the Environment, I am pleased to present the *2006-2007 Departmental Performance Report* for the period ending March 31st, 2007. This document summarizes the achievements of the Strategic Outcomes set out in Environment Canada's *2006-2007 Report on Plans and Priorities*.

This reporting year was an important one for Environment Canada. The environment remains an important and top-of-mind concern for Canadians and our Government. The good news is that our Government is taking concrete action to deliver on new environmental programs and initiatives such as:

- Our Turning the Corner Action Plan to fight climate change and reduce air pollution;
- $225 million to support sensitive ecosystems and promote land conservation;
- $110 million to protect Species at Risk;
- $30 million to conserve and protect the Great Bear Rainforest in British Columbia; and
- Canada's Chemicals Management Plan.

In order to support the Government's environmental agenda, the department continued to carry out the important scientific research that enables federal programs and policy development within its mandate and jurisdiction. This research is fundamental to providing credible information services to help Canadians make informed decisions about the environment. The data also enabled Environment Canada to make significant progress on strategic outcomes, such as:

- Addressing climate change;
- Protecting Canada's natural treasures such as water, wildlife, land and landscapes; and
- Improving air quality.

In fiscal year 2007-2008, we will continue our aggressive efforts to tackle environmental issues of concern to Canadians, both domestically and internationally. As we move forward to provide a safer, cleaner environment, I would like to take this opportunity to recognize the efforts of the employees of Environment Canada, and thank them for their continued support, dedication, and hard work.

The Honourable John Baird, P.C., M.P.
Minister of the Environment

Management Representation Statement

I submit for tabling in Parliament, the *2006-2007 Departmental Performance Report* (DPR) for Environment Canada.

This document has been prepared based on the reporting principles contained in the *Guide for the Preparation of Part III of the 2006-2007 Estimates: Reports on Plans and Priorities and Departmental Performance Reports*:

- It adheres to the specific reporting requirements outlined in the Treasury Board of Canada Secretariat guidance;
- It is based on the department's strategic outcomes and Program Activity Architecture that were approved by the Treasury Board in 2006-2007;
- It presents consistent, comprehensive, balanced and reliable information;
- It provides a basis of accountability for the results achieved with the resources and authorities entrusted to it; and
- It reports finances based on approved numbers from the Estimates and the Public Accounts of Canada.

Michael Horgan
Deputy Minister of the Environment

2005–2006 to 2006–2007 Program Activity Architecture (PAA) Crosswalk

Environment Canada received Treasury Board approval to modify its Program Activity Architecture (PAA) for 2006–2007. The table below provides a crosswalk between Environment Canada's 2005–2006 and 2006–2007 Program Activity Architectures.

Environment Canada's 2006–2007 Program Activities ($ millions)	Environment Canada's 2005–2006 Program Activities ($ millions)*								
Program Activities	Reduced greenhouse gas emissions	Improved air quality	Reduced risk from toxics and other substances of concern	Biological diversity is conserved	Clean, safe and secure water for people and ecosystems	Priority ecosystems are conserved and restored	Reduced impact of weather and related hazards	Adaptation to environmental changes	Totals
Biodiversity is conserved and protected	--	--	--	121.9	0.2	3.2	--	--	125.3
Water is clean, safe and secure	--	--	--	--	54.7	--	--	0.2	54.9
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	--	--	15.9	--	15.6	40.2	--	0.2	71.8
Improved knowledge and information on weather and environmental conditions influences decision-making	--	--	--	--	--	--	71.3	46.3	117.6
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	--	12.2	0.7	--	--	13.5	81.6	43.5	151.6
Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced	--	68.0	168.3	--	--	--	--	--	236.3
Canadians adopt sustainable consumption and production approaches	--	10.9	15.7	--	--	--	--	--	26.6
Net emissions of greenhouse gases are reduced	18.5	--	--	--	--	--	--	--	18.5
Canadians understand the impacts of climate change and adapt to its effects	--	--	--	--	--	--	--	1.3	1.3
Subtotal	18.5	91.1	200.7	121.9	70.4	56.8	152.9	91.5	803.9
Adjustments									34.5
Total Planned Spending									838.4

*Totals may differ within and between tables due to the rounding of figures.

Summary Information

Reason for Existence: A number of acts and regulations provide the department with its mandate and allow it to carry out its programs. Under the *Department of the Environment Act*, the powers, duties, and functions of the Minister of the Environment extend to and include matters relating to:

- The preservation and enhancement of the quality of the natural environment, including water, air and soil quality;
- Renewable resources, including migratory birds and other non-domestic flora and fauna;
- Water;
- Meteorology;
- The enforcement of any rules or regulations made by the International Joint Commission relating to boundary waters; and
- The coordination of the policies and programs of the Government of Canada respecting the preservation and enhancement of the quality of the natural environment.

Additional authorities are provided in the other acts and regulations administered by the department, including the *Species at Risk Act* and the *Canadian Environmental Protection Act*, 1999. For details on departmental legislation and regulations, see the Environmental Acts and Regulations website.[1]

Resources

($ millions)	Planned Spending	Total Authorities	Actual Spending
Financial Resources	838.4	888.3	868.4

Full Time Equivalents	Planned	Actual	Difference
Human Resources	6,363	6,646	283

Departmental Priorities*

Strategic Outcome: Canada's natural capital is restored, conserved and enhanced.

Priority: Develop and implement innovative strategies, programs and partnerships to ensure that Canada's natural capital is sustained for present and future generations. (Ongoing)

Expected Results	Performance Status	Planned Spending	Actual Spending
Biodiversity is conserved and protected	Long-term / On Track	125.6	143.5
Water is clean, safe and secure	Long-term / On Track	59.7	95.7
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	Long-term / On Track	80.9	59.6
Totals		**266.2**	**298.8**

[1] Environment Canada, Environmental Acts and Regulations: http://www.ec.gc.ca/EnviroRegs

Strategic Outcome: Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians.			
Priority: Provide Canadians with world-class meteorological and environmental information, predictions and services to ensure safety and support economic activity. (Ongoing)			
Expected Results	**Performance Status**	**Planned Spending**	**Actual Spending**
Improved knowledge and information on weather and environmental conditions influences decision-making	Long-term / On Track	121.8	138.9
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	Long-term / On Track	151.0	142.1
Totals		**272.8**	**281.0**

Strategic Outcome: Canadians and their environment are protected from the effects of pollution and waste.			
Priority: Develop and implement innovative strategies, programs and partnerships to protect Canadians and their environment from the effects of harmful substances. (Ongoing)			
Expected Results	**Performance Status**	**Planned Spending**	**Actual Spending**
Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced	Long-term / On Track	238.5	229.8
Canadians adopt sustainable consumption and production approaches	Long-term / On Track	26.5	29.7
Totals		**265.0**	**259.5**

Strategic Outcome: The impacts of climate change on Canada are reduced.			
Priority: Address the long-term challenge of climate change and help Canada adapt to a changing climate. (Ongoing)			
Expected Results	**Performance Status**	**Planned Spending**	**Actual Spending**
Net emissions of greenhouse gases are reduced	Long-term / On Track	32.6	24.4
Canadians understand the impacts of climate change and adapt to its effects	Long-term / On Track	1.9	4.8
Totals		**34.5**	**29.2**

*All of Environment Canada's departmental priorities contribute to the government-wide economic outcome of a clean and healthy environment.

Overall Departmental Performance

Government Context
During fiscal year 2006-2007, the Government of Canada delivered significant new direction on environmental policy and programs.

Advantage Canada[2], released on November 23, 2006 with the Government's Economic and Fiscal Update 2006, stated that "...protecting Canada's environment is central to the *Advantage Canada* plan and an important source of long-term economic strength for Canada." In particular:

- "A healthier and cleaner environment enriches the quality of life in Canada, and attracts and retains the highly skilled and mobile people we need to succeed in the global economy.
- Responsible development of our natural resources ensures future jobs and wealth creation across the country.
- Energy efficiency and environmentally sustainable business practices are increasingly important competitive advantages for our businesses.
- Canada has the potential to be a leader in the rapidly emerging business of environmental technology."

Budget 2007 invested significant new resources to: clean air and water; reduction of greenhouse gases; and combating climate change, as well as protecting the natural environment. The Budget identified four environmental priorities under the general theme of "A Better Canada: Ensuring a Cleaner, Healthier Environment."

- Cleaner Energy and Better Energy Efficiency
- Promoting Cleaner Transportation
- Protecting Canada's Natural Heritage
- Canada's National Water Strategy

Budget 2007 included new investments in the environment for 20 programs that total $4.5 billion. These include the following:

- $1.5 billion in new funding for the Clean Air and Climate Change Trust Fund;
- $2 billion to support renewable fuel production;
- $385 million to preserve Canada's natural heritage and ecologically sensitive lands;
- $110 million to strengthen the implementation of the *Species At Risk Act*;
- $93 million for a new National Water Strategy which includes the following:
    - $11 million over two-years to clean-up eight areas of the Great Lakes Basin identified under the Canada-U.S. Great Lakes Water Quality Agreement;
    - $5 million over two-years for the International Joint Commission to carry-out a study with the U.S. on the flow of water out of Lake Superior;
    - $12 million over two-years to support the clean-up of Lake Simcoe;

[2] Department of Finance Canada, Advantage Canada, Investing for Sustainable Growth: http://www.fin.gc.ca/ec2006/plan/plc4e.html.

- $7 million over two-years to support the clean-up of Lake Winnipeg;
- $19 million over-two years to help clean and protect our oceans and support water pollution prevention, surveillance and enforcement along Canada's coasts; and
- $39 million over two-years to increase fisheries science research programs.

- $22 million to support a 50% increase in the number of environmental enforcement officers hired; and
- $169 million for rebates for fuel-efficient vehicles.

In April 2007, the Government released *Turning the Corner*, which takes an integrated approach to reducing greenhouse gas emissions and air pollutants. *Turning the Corner* includes the Regulatory Framework for Air Emissions, which establishes short, medium and long term reduction targets for industrial and other emission and pollution sources that will benefit both the health of Canadians and Canada's environment.

The real reductions in emissions that will be driven by the Government's new regulations, coupled with the impacts of both the non-regulatory actions and ambitious new initiatives being taken by provincial and territorial governments, mean that Canada's greenhouse gas emissions from all sources are expected to begin to decline as early as 2010 and no later than 2012. Thereafter, absolute emissions will continue to decline. The Government is committed to reducing Canada's total emissions of greenhouse gases by 20% by 2020 and by 60% to 70% by 2050.

In support of this ambitious agenda, Environment Canada carried out a wide range of programs and activities and delivered services to Canadians for 2006-2007, to make progress towards the four strategic outcomes within the framework of its Program Activity Architecture (PAA):

- Canada's natural capital is restored, conserved and enhanced;
- Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians;
- Canadians and their environment are protected from the effects of pollution and waste; and
- The impacts of climate change on Canada are reduced.

Progress and Performance Highlights
The department had identified the following priority areas in its *2006-2007 Report on Plans and Priorities* to contribute to its strategic outcomes:

Priority: Reducing Air Pollutants

To follow through on this priority area for 2006-2007, Environment Canada planned to focus on protecting Canadians from the harmful effects of air pollution by introducing new measures to reduce air pollution and achieve tangible reductions in greenhouse gas emissions.

Performance Highlights:
- Environment Canada led the development of *Turning the Corner*, the regulatory plan that seeks mandatory real reductions in Canada's greenhouse gas emissions and air pollutants.

The key element of *Turning the Corner* is the Regulatory Framework for Industrial Air Emissions;

- Environment Canada supported active Canadian participation in the United Nations Framework Convention on Climate Change, G8 discussions, and Gleneagles Dialogue;
- On April 29, 2006, a Notice was published in the *Canada Gazette* requiring base metal smelters to prepare and implement comprehensive Pollution Prevention Plans and to publicly report on their conformance with an Environmental Code for Practice for Base Metals Smelters and Refineries. Base smelters can release large amounts of pollutants such as sulphur dioxide, which contribute to acid rain, smog and have adverse effects on lakes, soils, forests, plants, and human respiratory systems;
- Air quality related regulations were published in 2006-2007, such as the *Marine Spark-Ignition Engine and Off-Road Recreational Vehicle Emissions Regulations*, Regulations amending the *Ozone-Depleting Substances Regulations*, Amendments to *Sulphur in Gasoline Regulations*, and Regulations Amending the *On-Road Vehicle and Engine Emission Regulations;*
- In December 2006, the Government took further action to combat climate change by announcing its intent to regulate the use of renewable fuels in Canada;
- The Government also published a variety of reports and studies on air quality, including the *National Air Pollutant Surveillance Annual Data Summary for 2004 (NAPS)*, the *Canada-United-States Air Quality Agreement Progress Report*, and the *Five Year Comprehensive Report on Progress Towards the Canada-Wide Standard for PM and Ozone*; and
- Reported the status of greenhouse gas emissions in Canada in the *2006 Canadian Environmental Sustainability Indicators* report and the greenhouse gas inventory prepared for the United Nations Framework Convention on Climate Change.

Priority: Protecting Canadians from Toxic Substances

To follow through on this priority area for 2006-2007, Environment Canada, in partnership with Health Canada, planned to focus on: ensuring that toxic substances are managed in a way that protects the health of Canadians and that of the natural environment; introduce a strategy to strengthen the sound management of chemicals; take action to address the substances that have been found to be the most hazardous; and take measures to reduce the risks that harmful substances pose to the health of Canadians and the environment.

Performance Highlights:

- In September 2006, Canada completed the categorization exercise of its entire inventory of 23,000 "chemicals in commerce" which had not, until now, undergone scientific review;
- On December 8, 2006, the government unveiled Canada's Chemicals Management Plan, which takes immediate action to regulate chemicals that are harmful to human health or the environment. The plan makes Canada a world leader in assessing and regulating chemicals that are used in thousands of industrial and consumer products;
- Announcement of the launch of the Challenge to Industry for the safe management of chemicals, which has already begun with the Gazetting of the first list of 15 priority substances. As part of its Chemicals Management Plan, industry is challenged to provide the government with information about how they are safely managing 200 chemical substances. These substances were identified as high priorities for government action

following the world-leading work by Canada on the systematic categorization of legacy chemical substances;

- Completion of the development of a Chemical Substances website;[3]
- Environment Canada issued a Pollution Prevention Notice to reduce the amount of mercury released into the environment from scrap cars. Mercury is a highly toxic substance that can cause serious human health and ecological effects; as a result, measures have been introduced to remove mercury from scrap cars before they are recycled; and
- The National Pollutant Release Inventory collected and made public its information on 8,400 industrial facilities regarding their 2005 releases, disposals and recycling of 341 pollutants.

Priority: Ensuring Water Quality and Quantity

To follow through on this priority area for 2006-2007, Environment Canada planned to focus on priority ecosystems such as the Great Lakes and work with provinces, territories and municipalities regarding municipal wastewater.

Performance Highlights:

- Budget 2007 committed $93 million to support a series of initiatives that will help ensure clean and safe water for Canadians. Initiatives include concrete plans that will improve the quality of drinking water, clean up polluted waters, help maintain water levels in the Great Lakes and protect ecosystems;
- Initiation of an Upper Great Lakes study to develop a sustainable outflow regulation plan for Lake Superior;
- Completion of the negotiation of a Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem, covering the period from 2007-2010. This agreement has renewed a 36-year commitment to Great Lakes protection that includes: cleaning up Areas of Concern, reducing harmful pollutants, improving water quality and conserving fish and wildlife habitat and improving land management practices within the Great Lakes watershed. Two new areas of special focus which will enhance cooperative work in the Great Lakes Basin are: understanding climate change impacts and protecting the Great Lakes as a source of drinking water;
- The Great Lakes Sustainability Fund supported 49 projects in ten Canadian and five Canada-U.S. Joint Areas of Concern. With a total investment of $2.4 million, the projects included: remediation of contaminated sediments; restoration of degraded habitat; and reduction of harmful pollutants in rural and urban wastewater and storm water runoff. These projects contributed to Canada's commitment to restoring environmental use impairments in the most degraded locations within the Great Lakes;
- Environment Canada committed funding over three years to the Lake Winnipeg Research Consortium. The funds will be used to facilitate and coordinate collaborative research and monitoring activities regarding processes that are critical to the health of Lake Winnipeg. In addition, the funds will support the vessel *MV Namao* in research and educational activities and establish an electronic archive of scientific data and information about the lake; and

[3] Chemical Substances: http://www.chemicalsubstances.gc.ca

- In partnership with the territories, the Water Survey of Canada, within Environment Canada, successfully added seventeen new hydrometric stream gauges in the Baffin Region of Nunavut.

Priority: Supporting Clean Land and Biodiversity
To follow through on this priority area for 2006-2007, Environment Canada planned to focus on: the clean-up of contaminated sites and brownfields; and the adoption of a comprehensive, outcomes based approach to biodiversity (by focusing on eco-systems rather than species-by-species activities).

Performance Highlights:

- In 2006-2007, Environment Canada and the Treasury Board Secretariat approved $75 million under the Federal Contaminated Sites Action Plan Program for the assessment and remediation of more than 2,500 sites across the country;
- As of April 2006, under the Federal Contaminated Sites Action Plan, 1,371 sites have been assessed and 45 sites have been cleaned up;
- On August 24, 2006, Environment Canada and the Department of Fisheries and Oceans announced the addition of 32 land-based species and ten aquatic species to Schedule 1, the list of Species protected under the *Species at Risk Act;*
- In October 2006, the Canadian Councils of Resource Ministers approved a Biodiversity Outcomes Framework for Canada. It provides implementation and reporting frameworks for the Canadian Biodiversity Strategy;
- An Ecosystem Approach for Environmental Management was developed in 2006; its objective is to maintain a natural capital system that ensures a perpetual supply of the ecological goods and services, provided by ecosystems, to sustain Canadians' health, economic prosperity and competitiveness;
- The federal government, provinces and territories have developed a National Framework for Species at Risk Conservation to provide a set of common principles, objectives and overarching rules for dealing with species at risk;
- Environment Canada published the *Canadian Protected Areas Status Report 2000-2005,* which compiled information related to "protected areas network" under the responsibility of federal, provincial and territorial administrations in Canada;
- Under the Ecological Gifts Program, 69 donations of ecologically sensitive land were completed in 2006-2007. This is an addition of 4,575 hectares to privately held land valued at $35 million;
- The Habitat Stewardship Program supported 167 projects totalling $8.9 million to protect and recover priority species at risk, as recommended in the Recovery Strategies;
- On January 18, 2007, Environment Canada and Natural Resources Canada announced a contribution of $2 million towards the restoration of Vancouver's Stanley Park National Historic Site (NHS) of Canada.
- On January 21, 2007, the Government of Canada announced the contribution of $30 million to preserve the Great Bear Rainforest in B.C. for future generations;
- On March 14, 2007, the Government of Canada announced $225 million to conserve and protect ecologically sensitive lands; and
- On March 15, 2007, the Government of Canada announced a contribution of $1 million toward the reforestation of Point Pleasant Park in Halifax. This contribution will ensure the

regeneration of the forest's ecosystem and biodiversity for the benefit of current and future generations.

Other Priorities

Science Plan – Science and Technology Strategy
Science provides a foundation for sound policy decisions and actions, as well as improved services to Canadians. Environment Canada has completed its first-ever Science Plan. The Science Plan sets out a clear mission for Environment Canada's science over the next ten years. It enables the Department to deliver the high-quality knowledge, information and data that Canadians need in their daily personal and business decisions and that decision-makers need to ensure the highest quality of environment for Canadians. Significant progress has also been made on a Departmental Technology Plan. The two plans will ultimately be merged into a single comprehensive Science and Technology Plan.

Services to Canadians
During 2006-2007, Environment Canada maintained and improved its essential services to Canadians. For instance, significant improvements were made to the following:

- Departmental Weatheroffice website, the government of Canada's most popular site;
- Development of the Air Quality Health Index was completed; and
- The accuracy and the scope of traditional weather forecast services were enhanced.

Indicators of Environmental Sustainability

Environment Canada, Statistics Canada and Health Canada are working together to further develop and communicate national environmental indicators of air quality, greenhouse gas emissions and freshwater quality—measuring sticks that can track progress by governments, industries and individuals in protecting and improving the environment. These indicators were first reported in *Canadian Environmental Sustainability Indicators (CESI) 2005*[4] and have been updated and further developed in the 2006 report. The following includes relevant extracts from the report:

"The air quality indicators reflect the potential for long term exposure of Canadians to ground-level ozone and fine particulate matter ($PM_{2.5}$), key components of smog and two of the most common and harmful air pollutants to which people are exposed. Both the ozone and $PM_{2.5}$ indicators are population-weighted estimates of average warm-season concentrations of these pollutants observed at monitoring stations across Canada.

- At the national level, from 1990 to 2004, the ozone indicator showed year-to-year variability, with an average increase of 0.9% per year. Stations in southern Ontario reported the highest levels in the country in 2004 and the most rapid increase since 1990. From 2000 to 2004, the highest levels of $PM_{2.5}$ were also reported in southern Ontario, with areas in

[4] Environment Canada, *Canadian Environmental Sustainability Indicators Highlights 2006*: http://www.ec.gc.ca/environmentandresources/CESIHL2006_e.pdf

southern Quebec/eastern Ontario also showing high levels. There was no discernible upward or downward trend in $PM_{2.5}$ levels at the national level for the 2000 to 2004 period.

- Human activities contributing to air pollution include the use of motor vehicles, fossil fuel combustion for residential and industrial purposes, thermal-electric power generation and wood burning for residential home heating. Air quality is also influenced by the atmospheric transport of pollutants from other regions and by weather conditions.
- Health Canada is researching the feasibility of developing and reporting an integrated environment and health indicator (Air Health Indicator) that would be based on the combined health risks of exposure to several air pollutants, including particulate matter and ozone.

The greenhouse gas emissions indicator tracks the annual releases of the six greenhouse gases that are the major contributors to climate change. The indicator comes directly from the greenhouse gas inventory report prepared by Environment Canada for the United Nations Framework Convention on Climate Change."

- The greenhouse gas emissions indicator focuses on total national emissions of greenhouse gases. Emissions rose 25.3% from 1990 to 2005. In 2005, emissions were 32.7% above the target to which Canada committed in December 2002 when it ratified the Kyoto Protocol to the United Nations Framework Convention on Climate Change - 6% below the 1990 baseline by the period 2008 to 2012. Thermal-electric power generation, road vehicle use and oil and gas production were the principal sources of the increase in emissions.

"The freshwater quality indicator reports the status of surface freshwater quality at selected monitoring sites across the country, including the Great Lakes and, for the first time in this report, northern Canada. The indicator uses the Water Quality Index, endorsed by the Canadian Council of Ministers of the Environment, to summarize the extent to which water quality guidelines for the protection of aquatic life (plants, invertebrates and fish) are exceeded in Canadian rivers and lakes. The focus on protection of aquatic life provides the most broadly based indicator of water quality, best reflecting the level of ecosystem health in freshwater bodies across Canada.

- Freshwater quality: Good-quality fresh water is fundamental to ecosystems, human health and economic performance. Freshwater quality in Canada is under pressure from a range of sources, including agriculture, industrial activity and human settlements; and
- The freshwater quality indicator presented in this report covers the period from 2002 to 2004 and focuses only on the ability of Canada's surface waters to support aquatic life. For the 340 sites selected across southern Canada, water quality was rated as "good" or "excellent" at 44% of sites, "fair" at 34% and "marginal" or "poor" at 22%.

These Canadian Environmental Sustainability Indicators are designed to supplement traditional social and economic measures, such as employment levels and the Gross Domestic Product, so that Canadians can better understand the relationships that exist among the economy, the environment and human health and well-being. They are intended to assist those in government who are responsible for developing policy and measuring performance, as well as offering all Canadians information about environmental sustainability in Canada."

Indicators of long-term progress in the areas of a clean and healthy environment are also reported in the President of the Treasury Board's annual report to Parliament *Canada's Performance: The Government of Canada's Contribution.*[5] The following indicators were displayed in the 2006 report:

Trend	Indicator	Performance Highlights
▼	Air quality	At the national level, the population-weighted, warm-season average of ground-level ozone increased 16% from 1990 to 2003. Ground-level ozone is a key component of smog and one of the most harmful air pollutants to which people are exposed. Ozone is an important indicator of air quality, as there are currently no established thresholds below which it does not pose a risk to human health.*
—	Water use	In 2001, average residential water use per person was 335.0 L per day–an increase of 8.0 L from the lowest rate in 1996, though an improvement over the previous survey results from 1999.
▼	Biodiversity	As of May 2006, the status of 163 species previously determined to be at risk had been reassessed. Of these, the status of 48 species worsened (29.4%), whereas 27 species (16.6%) were determined to be no longer at risk or placed in a lower risk category.
▼	Greenhouse gas emissions	Canadian greenhouse gas emissions increased by 0.6% between 2003 and 2004 and by 26.6% since 1990. The increase in emissions was spurred by economic growth of 47.8% between 1990 and 2004 but was mitigated by an increase in the level of energy efficiency in Canada of 13.6% during that time frame.

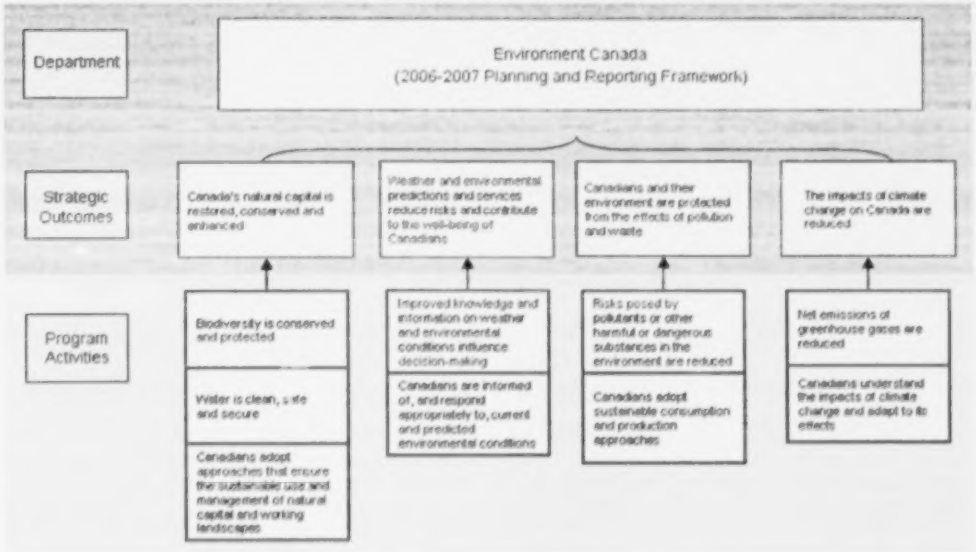
*The air quality indicator measures were revised in *Canada's Performance 2006* to coincide with the way in which the Government of Canada has measured air quality since December 2005. These measures now reflect trends in Canadians' exposure to ground-level ozone (a key component of smog) rather than average concentrations of air pollutants. They provide a standard for tracking air quality and will serve as an annual measuring stick with which the government and the public can track progress in achieving cleaner air. As other measures of air quality become available, they will be included in future *Canada's Performance* reports.

▲ Trend improving
— No definitive trend noted at this time (due to lack of trend data or multiple measures with opposing trends)
▼ Trend declining

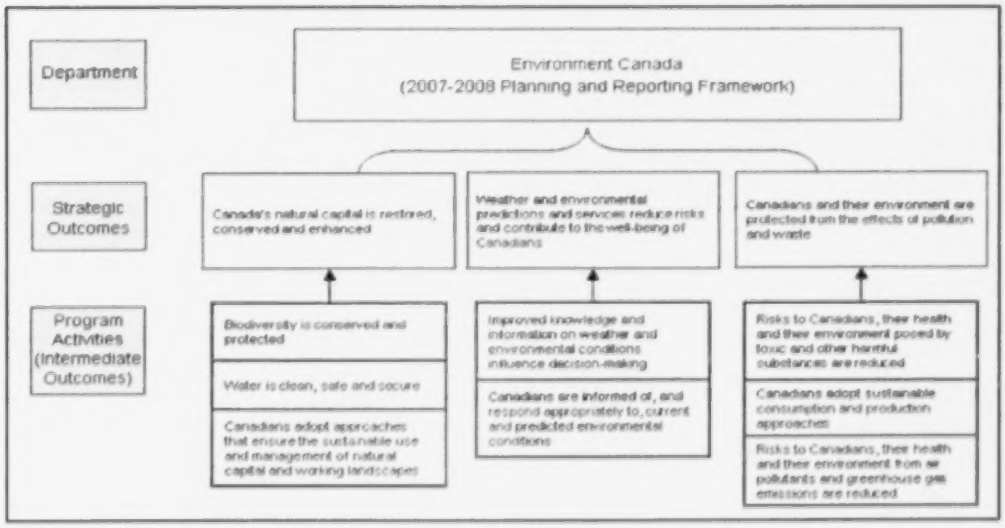
[5] Treasury Board of Canada Secretariat, *Canada's Performance 2006*: The Government of Canada's Contribution: http://www.tbs-sct.gc.ca/report/govrev/06/cp-rc05_e.asp#_Toc151520496

SECTION II: ANALYSIS OF PROGRAM ACTIVITIES BY STRATEGIC OUTCOME

Environment Canada's Program Activity Architecture


Department
Environment Canada
(2006-2007 Planning and Reporting Framework)
Strategic Outcomes
Canada's natural capital is restored, conserved and enhanced
Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians
Canadians and their environment are protected from the effects of pollution and waste
The impacts of climate change on Canada are reduced
Program Activities
Biodiversity is conserved and protected
Water is clean, safe and secure
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes
Improved knowledge and information on weather and environmental conditions influence decision-making
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions
Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced
Canadians adopt sustainable consumption and production approaches
Net emissions of greenhouse gases are reduced
Canadians understand the impacts of climate change and adapt to its effects

Environment Canada required amendments to its 2006-2007 Program Activity Architecture (PAA) to reflect new policy directions and priorities and to ensure that the Department's planning and reporting structure was aligned to respond to and support the evolving policy context. Work to help Canadians understand and adapt to the effect of climate change has been integrated with our weather and environmental predictions and services and our programs to reduce net emission of greenhouse gas emissions have been aligned with our work to protect Canadians from the effects of pollution and waste. This new Architecture has been applied in Environment Canada's *2007–2008 Report on Plans and Priorities* and is adapted into reporting for Environment Canada's *2006-2007 Departmental Performance Report.*

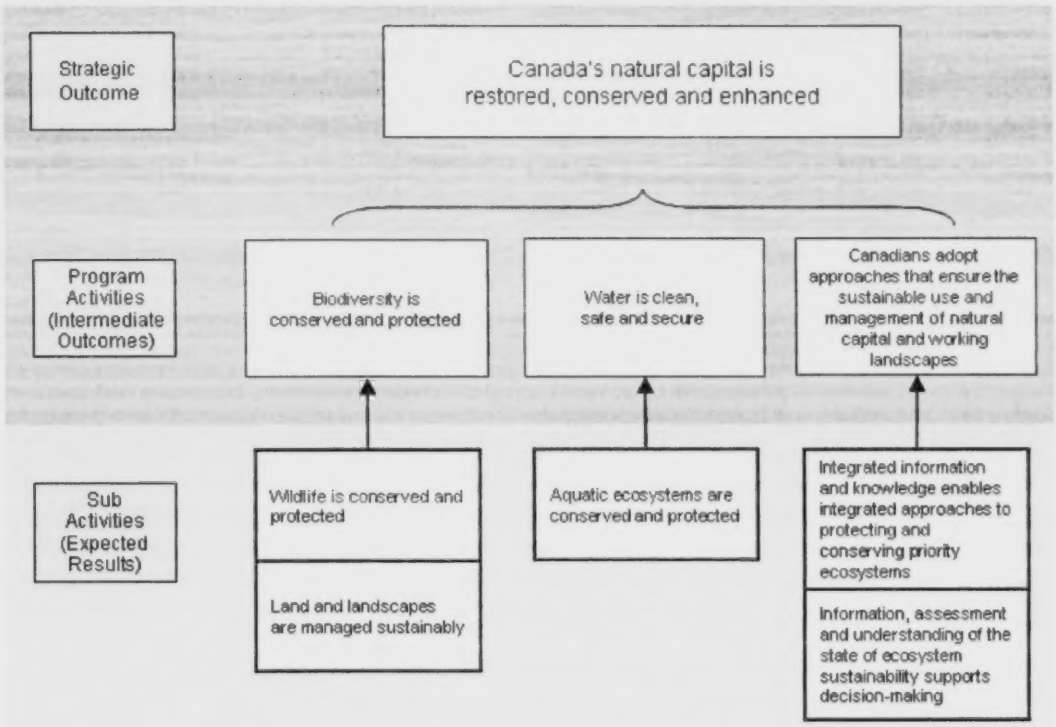

Department
Environment Canada
(2007-2008 Planning and Reporting Framework)
Strategic Outcomes
Canada's natural capital is restored, conserved and enhanced
Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians
Canadians and their environment are protected from the effects of pollution and waste
Program Activities (Intermediate Outcomes)
Biodiversity is conserved and protected
Water is clean, safe and secure
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes
Improved knowledge and information on weather and environmental conditions influence decision-making
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions
Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced
Canadians adopt sustainable consumption and production approaches
Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced

2006-2007 Resources by Program Activity

2006-2007 Actual Spending ($ millions)						
Program Activities ($ millions)	**Operating**	**Capital**	**Grants and Contributions**	**Subtotal: Gross Voted Expenditures**	**Less: Respendable Revenue**	**Total Net Expenditures**
Biodiversity is conserved and protected	120.7	1.6	21.9	144.2	(0.7)	**143.5**
Water is safe, clean and secure	93.0	4.7	0.8	98.4	(2.7)	**95.7**
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	51.9	0.3	7.5	59.7	(0.1)	**59.6**
Improved knowledge and information on weather and environmental conditions influences decision-making	142.6	11.5	0.5	154.7	(15.8)	**138.9**
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	169.2	7.2	6.2	182.6	(40.5)	**142.1**
Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced	219.8	7.9	6.9	234.7	(4.8)	**229.8**
Canadians adopt sustainable consumption and production approaches	24.9	1.2	3.6	29.7	(0.0)	**29.7**
Net emissions of greenhouse gases are reduced	23.8	0.3	0.3	24.4	(0.0)	**24.4**
Canadians understand the impacts of climate change and adapt to its effects	4.7	0.1	0.1	4.9	(0.1)	**4.8**
Total Planned Spending	**833.0**	**33.0**	**47.1**	**913.1**	**(74.7)**	**838.4**
Actual Spending	**850.6**	**34.8**	**47.9**	**933.3**	**(64.8)**	**868.4**

Totals may differ between and within tables due to rounding of figures.

Strategic Outcome 1: Canada's natural capital is restored, conserved and enhanced


Strategic Outcome
Canada's natural capital is restored, conserved and enhanced
Program Activities (Intermediate Outcomes)
Biodiversity is conserved and protected
Water is clean, safe and secure
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes
Sub Activities (Expected Results)
Wildlife is conserved and protected
Land and landscapes are managed sustainably
Aquatic ecosystems are conserved and protected
Integrated information and knowledge enables integrated approaches to protecting and conserving priority ecosystems
Information, assessment and understanding of the state of ecosystem sustainability supports decision-making

OVERVIEW:

What is the issue?

Natural capital includes the raw materials used in the production of manufactured goods, the land and water resources that anchor our quality of life and support economic activity, as well as living ecosystems that cleanse polluted air and water, reinvigorate soil, and contribute to a predictable and stable climate. Environment Canada works to conserve, restore and enhance Canada's natural capital by developing and implementing innovative strategies, programs and partnerships. The purpose of our work in this area is to ensure that Canada's natural capital is sustained for present and future generations.

Despite the apparent abundance of resources, Canada's natural capital is at risk. Human induced pressures are contributing to significant declines in many species of animals and plants. Urbanization, agricultural intensification, forest harvesting and other resource extraction industries are leading to increased habitat loss and fragmentation. The long-term effects of acid rain, expanded usage of pesticides and other toxic chemicals, and threats resulting from global climate change exacerbate this situation. Finally, increased international human movement and trade are contributing to the introduction of new diseases and invasive alien species; thus,

increasing the threats to wildlife and their habitats. Addressing these issues requires an integrated approach involving federal agencies, provincial and territorial governments, Aboriginal organizations and other stakeholders.

What are we doing about it?

Environment Canada's programs, services and initiatives to restore, conserve, and enhance Canada's natural capital involve the building of shared strategies and partnerships for conserving Canada's wildlife, ecosystems, freshwater and wetland resources. The protection of wildlife under federal jurisdiction, such as migratory birds and species at risk, contribute to the health of ecosystems. Additionally, the establishment of science and technology practices and partnerships contribute to the understanding of nationally significant ecosystems.

Are we succeeding? Progress Against Priorities

The following is a summary of Environment Canada's progress against priorities commitments established in the *2006-2007 Report on Plans and Priorities*:

1. *Developing and implementing a nationally coherent, ecosystem-based approach to planning and delivering initiatives.*

An Ecosystem Approach for Environmental Management was developed in 2006. The objective is to maintain a natural capital system that ensures a perpetual supply of ecological goods and services. These goods and services, as provided by Canadian ecosystems, sustain the health, economic prosperity and competitiveness of Canadians. The approach is being implemented through the department with the expectation that horizontality and interactions within the department will be strengthened. This approach will help Environment Canada to define and implement the programs, tools and systems required to improve the understanding, assessment, decision-making and actions required for the restoration, conservation and enhancement of Canadian ecosystems. The Ecosystem Approach is expected to increase the department's capacity to effectively sustain Canada's natural capital.

2. *From an ecosystem perspective, taking action to identify and begin addressing the critical knowledge gaps that limit integrated decision-making impacting on natural capital.*

The newly published *Environment Canada's Science Plan*[6] will bring forward a more integrated and collaborative approach to environmental science within the department and with its external partners. Within the context of the ecosystem sustainability outcome, the plan forges consensus on key challenges and priorities for moving forward.

The Plan is expected to reaffirm Canada's need to improve its monitoring systems and develop the knowledge and data to promote environmental sustainability. Environment Canada must enhance its capacity to develop comprehensive and integrated policies to protect ecosystems. The Department also needs to increase its understanding of the cumulative effects of human

[6] Environment Canada, *Environment Canada's Science Plan*: http://www.ec.gc.ca/scitech/9FA49B9A-2A69-4BF9-AA4C-526C406AE3F7/EC_SciencePlanEn_2006.pdf

impacts on the environment and to strengthen its science-based practices in areas such as species recovery and stewardship.

3. *Implementing the Species at Risk Act (SARA) through a transparent, consistent and harmonized policy and program framework that ensures stakeholder involvement and the inclusion of both ecological and socio-economic considerations.*

In order to support the implementation of the *1996 Accord for the Protection of Species at Risk*, the federal government, provinces and territories have developed a National Framework for Species at Risk Conservation. The overarching policy document for the framework was completed in the summer of 2006 and it provides a set of common principles, objectives and overarching approaches for species at risk conservation. All participants will be able to share and work toward the framework in a collaborative manner. Endorsed by provincial and territorial Ministers at a joint meeting of the Canadian Councils of Resource Ministers and Canadian Council of Ministers of the Environment in October 2006, the framework establishes species conservation as a cycle that includes assessment, protection, recovery planning, implementation, and monitoring and evaluation.

An interdepartmental evaluation of the Government of Canada's SARA programs was completed and approved in July 2006. Recommendations focused on governance and management and the subsequent Management Action Plan that was developed to respond to the recommendations is now being implemented.

4. *Implementing the Migratory Birds Convention Act by pursuing the North American Bird Conservation Initiative (NABCI) Action Plan and establishing a regulation for incidental take to ensure effective conservation of migratory bird populations while promoting sustainable economic growth.*

A North American Bird Conservation Initiative (NABCI) action plan has been proposed to the NABCI Council. The plan emphasizes the coordinated monitoring of bird populations as a first step in the Environment Canada Biodiversity Monitoring Strategy and the importance of completing Bird Conservation Region plans to guide consistent conservation activities for birds across Canada.

In 2006-2007, the basis for a regulation on incidental take of migratory birds, the strategic approach, the consultation strategy and the resource scoping assessment were developed. Pre-consultation on the subject of incidental take of migratory birds was extended to NABCI Council, provincial and territorial wildlife directors and key stakeholder groups.

5. *Strengthen federal, provincial, territorial and international collaboration to address shared water priorities.*

Canada has the third-largest supply of fresh water in the world. Budget 2007 announced a series of new measures to preserve and protect Canada's rivers, lakes and oceans for future generations. Over the next two years, the Government of Canada will invest $12 million to support the clean-up of Lake Simcoe, which has been affected by excessive amounts of phosphorus. In addition,

over a two-year period, $11 million will be used to accelerate the clean-up of the Great Lakes, and $7 million will be used for the Lake Winnipeg Basin.

Environment Canada is enhancing and expanding its work on aquatic ecosystems in collaboration with other federal departments, provinces and territories, science networks, non-governmental organizations, academia, and municipalities. The purposes are to share information, determine priorities for monitoring and research, and provide timely and integrated scientific information and advice to decision-makers with regards to the following items:

- Impacts of pollution on aquatic ecosystems,
- Water resource management through the promotion of sustainable water use in Canada, and
- Building of the best management practices for sustaining efficient use of Canada's water.

6. *Improving the department's ability to gather, integrate, use and disseminate information in order to support environmental assessment.*

The preliminary analysis and design for an Information Management Strategy for project environmental assessments was completed. Improved management of information will assist in the assessment and monitoring of ecosystem developments.

7. *Improving the management of protected areas and seek opportunities to enhance protected areas networks.*

In 2006, Environment Canada published the *Canadian Protected Areas Status Report 2000-2005.*[7] For the first time, the report brings together information related to all the protected areas networks, such as parks, migratory bird sanctuaries and ecological services, at the federal, provincial and territorial levels in Canada.

Environment Canada has initiated an assessment of the status of the 51 National Wildlife Areas and the 92 Migratory Bird Sanctuaries which comprise Environment Canada's Protected Areas Network. The assessment deals with such issues as the ecological integrity of the protected areas and the facilities conditions. The assessment, which is to continue in 2007-2008, is based on Environment Canada's *Protected Areas Manual*. The manual establishes draft national policies for managing Canada's protected areas.

Environment Canada, together with the Department of Fisheries and Oceans and the Parks Canada Agency, are continuing to advance the establishment of a federal marine protected areas network that will contribute to the health of Canada's oceans as established and managed within an integrated oceans management framework. In addition, Budget 2007 announced resources for the creation of Environment Canada's first Marine Wildlife Area, the proposed Scott Islands Marine Wildlife Area off Canada's Pacific Coast and the proposed Sable Island National Wildlife Area off Canada's East Coast.

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[7] Environment Canada, *Canadian Protected Areas Report 2000-2005:* http://www.cws-scf.ec.gc.ca/publications/habitat/cpa-apc/index_e.cfm

Budget 2007 also announced $10 million over two-years for the protection of ecologically important land under the Northwest Territories Protected Areas Strategy. Environment Canada currently sponsors three candidates for the National Wildlife Area under the strategy.

Investment

Program Activities	Financial Resources ($ millions)			Human Resources (FTEs)		
	Planned Spending	Total Authorities	Actual Spending	Planned	Actual	Difference
Biodiversity is conserved and protected	125.6	136.0	143.5	818	884	+66
Water is clean, safe and secure	59.7	86.2	95.7	467	1,002	+535
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	80.9	76.7	59.6	551	234	(317)
Totals	**266.2**	**298.9**	**298.8**	**1,836**	**2,120**	**+284**

Note: Variations between the actual and planned number of FTEs are principally due to re-alignment of program activities. For an overall outlook on the number of FTEs, please see Table 1 - Comparison of Planned to Actual Spending (including Full-time Equivalents).

Program Activity: Biodiversity is conserved and protected

What is the issue?

The most significant threat to biodiversity rests in the loss, degradation and fragmentation of the habitats that animals and plants require for survival. While parks and protected areas help protect natural habitats, these are scattered throughout the country, and in some areas, with only limited natural linkages between them. There is a need to broaden the traditional role of protected areas in conservation with an emphasis on achieving ecosystem integrity. Beyond parks and protected areas, there is increasing recognition of the need to increase conservation efforts with regards to working landscapes such as agricultural land, recreational areas, and areas of high natural resource usage. Targeted habitat stewardship initiatives across the country are also critical in ensuring that habitats are conserved and remain as an integral part of the efforts to protect species at risk.

Invasive alien species, which includes plants, animals and other organisms (e.g. microbes) are one of the biggest threats to biodiversity. In addition to environmental harm, these species can cause economic harm or harm to human health. Human actions are the primary means for the introduction of invasive species. With respect to invasive alien species, Environment Canada is progressing towards the following:

- Working with other federal departments under the National Invasive Alien Species Strategy;
- Seeking a broader engagement with Canada's marine industry;
- Beginning work on an environmental and policy scan of the transportation sector; and
- Providing advice to Transport Canada and Fisheries and Oceans Canada regarding treatment technology related to shipping ballast water.

For nature conservation to be a success, Canada needs to broaden its focus from simply protecting areas of land and water to managing the full continuum of ecosystems. This continuum of ecosystems includes wilderness, parks, working landscapes and urbanized areas. In partnership with private and public land users on the landscape, governments can strengthen the habitat conservation efforts. More actions are required to influence a wider range of private and public lands by engaging networks of stakeholders in habitat conservation strategies.

Conserving biodiversity does not focus entirely on the healthy populations of wild species; it also includes the protection and recovery of species that have become threatened or endangered, and to achieve the sustainable usage of wildlife. Successfully conserving biodiversity in Canada also requires the assessment of the threats that wild species face throughout their natural range. Canada needs to influence actions and activities beyond its national borders and to demonstrate its stewardship of global biodiversity. To secure the essential life support systems and Canada's economic prosperity, Canadians needs to ensure that the continued usage of the lands, waterways and oceans do not undermine the overall ability of ecosystems to function properly.

What are we doing about it?

Environment Canada's program activities in this area included the following:

- Protection and recovery of species at risk;
- Conservation, restoration and rehabilitation of significant habitats;
- Conservation of migratory birds; and
- Protection and regulation of species subject to international trade.

A primary vehicle for the achievement of results under these programs is the formation of strategic partnerships for the integrated management of Canada's natural capital, including the sustainable management of landscapes. The use of the best available science and the provision of regulatory certainty to stakeholders are key principles that support results under these programs.

The Department's main strategy is one of prevention – "keeping common species common." Once a species or ecosystem is in peril, efforts to reverse the problem are often more complicated and usually more costly. Canadians are able to maximize efficiencies by focusing on the prevention of problems–such as declining wildlife populations, the degradation or fragmentation of wildlife habitat, and threats to wildlife posed by international trade or releases of toxic substances into the environment. Environment Canada focuses on restoring, conserving, and enhancing natural capital through a holistic ecosystem approach that identifies, interprets and responds to environmental conservation concerns. The promotion and conservation of land, water, air and living resources are equally managed through the department's integrated strategy of prevention.

Specifically, the Department is working to achieve the following:

- Forge agreement with provinces and territories on a national framework that sets out agreed upon objectives and outcomes. The agreements will contribute to the achievement of sustainable land management, conservation of biological diversity, and the maintenance of essential ecosystem goods and services;

- Develop the knowledge, information, monitoring and assessment capacity in Canada to support integrated landscape management;
- Create enabling conditions through new and innovative policy instruments and tools that engage Canadians on biodiversity issues, support participatory decision-making and foster stewardship related to wildlife and landscapes;
- Focus efforts on the conservation and management of migratory bird populations and the recovery and stabilization of populations of species at risk. This can be achieved through the protection of key habitats, landscapes and ecosystems; and
- Employ national and international collaborative partnerships to mitigate threats posed by international trade on wild species.

Are we succeeding?

In 2006, federal and provincial/territorial ministers endorsed the National Framework for Species at Risk Conservation. The framework is an innovative policy instrument providing the basis for a renewed federal vision for the *Species at Risk Act*, and for programs to support its implementation. The framework also outlines objectives and key guiding principles for each stage in the species at risk conservation cycle. Adaptive management principles ensure that significant external factors that affect land management, biological diversity conservation, and the maintenance of essential ecosystem goods and services are considered. Under the framework, recovery measures will be adjusted or adapted to reflect new or changed circumstances in the environment and ecosystems within which species live.

In 2006, also, a bilateral agreement between the federal government and Quebec was signed to ensure a collaborative approach to the development and implementation planning of *Species At Risk Act*. This is the second such agreement to be signed (British Columbia was completed in 2005) and other similar bilateral agreements are near completion.

The Habitat Stewardship Program is a partnership-based conservation initiative that funds stewardship activities while seeking to engage Canadians. Activities under the program aim to protect and recover priority species at risk as recommended in Recovery Strategies, Action Plans and similar documents. In 2006-2007, the program supported 167 projects totalling $8.9M. These projects have reduced threats to many species at risk; currently there are 120 Endangered, 84 Threatened and 92 of Special Concern. More detailed results will be made available in the *Habitat Stewardship Program Annual Report 2006-2007*.

In October 2006, the Canadian Councils of Resource Ministers approved a Biodiversity Outcomes Framework for Canada. Developed jointly by federal, provincial and territorial governments, the framework provides an implementation and reporting framework for the Canadian Biodiversity Strategy and it will be used for identifying and linking conservation priorities, engaging Canadians in planning and implementing, and reporting on progress. As a first major deliverable under the framework, progress was made in identifying the parameters of a national report on Ecosystem Status and Trends.

Under the National Agri-Environmental Standards Initiative, Environment Canada is developing national agri-environmental performance standards for air quality, biodiversity, pesticides, and water quality and conservation in agricultural landscapes. In 2006-2007, Environment Canada

worked towards meeting its commitment to Agriculture and Agri-Food Canada by developing the first series of draft environmental performance standards for pesticides, water, and biodiversity. Scientific findings were communicated to Agriculture and Agri-Food Canada, provincial governments, producer organizations, and other interested stakeholders to assist landowners and others in making decisions about managing agricultural landscapes management that supports the conservation and protection of biodiversity.

On March 14, 2007, the Government of Canada announced $225 million to conserve and protect ecologically sensitive land. These funds will help non-profit, non-government organizations purchase ecologically sensitive lands to ensure the protection of our diverse ecosystems, wildlife, and habitat.

Under the *Migratory Bird Convention Act*, Environment Canada is scoping the development of a new regulatory framework that will provide for enhanced protection and conservation of migratory birds, while still allowing for a limited incidental take of birds and/or nests. In 2006-2007, several documents in support of this new regulatory approach to the management of the incidental take of migratory birds were developed. A draft discussion document was also circulated to the federal, provincial and territorial Canadian Wildlife Directors' Committee and to a forest industry stakeholder group.

Under the North American Bird Conservation Initiative, the long-term health of North America's native bird populations is ensured by increasing the effectiveness of new and existing bird conservation initiatives, enhancing coordination among the initiatives, and fostering greater cooperation among the continent's three national governments and their citizens. Two key accomplishments for 2006-2007 were the development of a North American Bird Conservation Initiative Council Action Plan which emphasizes the development of a species monitoring approach/framework and the completion of Bird Conservation Regions (BCR) plans. Conservation Plans for Bird Conservation Regions were also developed.

Canada long ago recognized the need to mitigate the threats posed by international trade on wild species and ensure existing trade is sustainable and was among the first countries to ratify the *Convention on International Trade in Endangered Species of Wild Fauna and* Flora in 1975. Environment Canada works with partners to ensure its obligations under the convention are met domestically through the implementation of the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act*. Internationally, the department emphasizes influencing action and highlighting Canadian approaches to sustainable wildlife management. In 2006-2007, Canada co-chaired the development of the convention's Strategic Vision for 2008-2013, the vehicle through which countries will set their priorities for the convention. Canada also contributed to reviewing the need for the convention's controls on some wild cat species, underscoring the conservation and sustainable use measures taken in Canada.

Major programs and initiatives

Expected Result: Wildlife is conserved and protected
Activities: Using a holistic ecosystem approach to identify, interpret and respond to wildlife conservation concerns; implementing integrated approaches to the management of land, water, air and living resources that promote conservation and sustainable use in an equitable way. Initiatives and activities in this program area flow from the legal obligations under the *Canada Wildlife Act* (CWA), the *Migratory Birds Convention Act, 1994*

(MBCA 1994), the *Species at Risk Act* (SARA), the *Canadian Environmental Protection Act, 1999* (CEPA 1999); and the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act* (WAPPRIITA).	
Key Indicators	**Progress in 2006-2007**
Improvement in the status of threatened and endangered species	Some of the Species at Risk program achievements in 2006-2007 include the following: • In 2006, 44 new species were added to the List of Wildlife Species at risk under the *Species at Risk Act* (SARA), bringing the total number of species listed under SARA for numbers endangered, threatened or of special concern to 389; • Committee on the Status of Endangered Wildlife in Canada assessed or reassessed 85 species, subspecies or populations; • In October 2006, federal, provincial and territorial ministers agreed to a national policy framework that will help guide management and decision-making with respect to future policy directions for species at risk; • A Quebec Species at Risk bilateral agreement was signed and agreements with other provinces and territories are near completion or in progress. These agreements strengthen the coordinated actions between federal and provincial governments and are one of the key measures to support the legal protection, recovery and actions for all species listed under the Act; • Substantive agreement was achieved with industry on the SARA Incidental Effects initiative and a National Workshop on the Ecosystem Approach applied to species assessment was held; • Environment Canada led recovery planning for 92 species and participated in the planning efforts for 196 other species; • The Interdepartmental Recovery Fund fostered partnerships among federal organizations and other organizations interested in the recovery of species at risk. The fund provided support for 60 projects, totalling $1.59 million. Forty-two of these projects were recovery projects and 18 were surveys on federal lands; • Environment Canada, together with the World Wildlife Fund, contributed $699,291 to 54 projects through the Endangered Species Recovery Fund. The funds went towards high-priority research and education projects to assist in the recovery of extirpated, endangered and threatened Canadian species, and to prevent other species from becoming at risk; • Aboriginal Critical Habitat Protection Fund provided $1,625,430 to 46 projects aiming at the protection of important or critical habitats; Aboriginal Capacity Building Fund distributed $879,754 to 36 projects dedicated to capacity building; and • 6,700 CITES permits were issued under WAPPRIITA in order to regulate international trade and ensure it does not pose a threat to wild species.
Maintenance of healthy levels of migratory bird populations	Progress for this indicator include the following: • Specific population objectives have been established for specific migratory bird species listed or harvested species. International population objectives for most waterfowl species have also been established in the North American Waterfowl Management Plan. Of the waterfowl species for which objectives have been set, most are within a desirable range of the targets, except for two species, scaup and pintail, which are the focus of remedial conservation planning; • Successful hunting regulations have been established for the overabundance of snow geese in an effort to bring the population closer to the targeted number; • The status of waterfowl populations in Canada were evaluated through cooperative aerial, ground surveys and the Breeding Bird Atlas Programs; • The annual process to evaluate the effectiveness of the hunting regulations was completed, and recommended amendments to the annual hunting regulations were

	made into law on a timely basis; • Information on the distribution, abundance and population status of non-game species were tracked through volunteer-based programs such as the Forest Bird Monitoring Program and the second Maritimes Breeding Bird Atlas; • Conservation priorities for waterfowl continued to be set and addressed continentally with Canadian and U.S. partners. Conservation plans are being developed for many other priority species through several of Canada's Bird Conservation Region plans; • Work is progressing on science-based population management objectives for priority migratory bird species; • Environment Canada continued to interact with the wind industry on applying the department's wind power guidelines for environmental assessment and monitoring protocols which were completed in September 2006; • Impacts of oil pollution on bird populations were assessed through Beached Bird Surveys on the Atlantic and Pacific coasts and through other initiatives. Timely responses and wildlife expertise were provided during several oil spill emergencies involving migratory birds; • Impacts of specific disease (e.g. botulism, avian cholera and avian influenza) on target migratory bird species were assessed with national monitoring programs; • Amendments to the *Migratory Birds Regulations* and the *Wildlife Area Regulations* were developed to update the definition of non-toxic shot to include tungsten-iron-nickel-copper as an approved non-toxic shot alternative for the hunting of migratory game birds; • A risk management strategy was initiated to minimize the risk to waterbirds caused by the use of toxic sinkers and jigs in the recreational fishery through the formation of an industry working group; • New proposal is being developed for regulations regarding incidental take of migratory birds; • Management, conservation plans and regulations were developed with the Migratory Bird Flyway Councils for waterfowl and other species. The Greater Snow Goose Management Plan for the Atlantic Flyway Council and an international adaptive harvest management strategy for black ducks were part of the plans; • Partnerships such as the Conservation of Arctic Flora and Fauna and the Western Hemisphere Migratory Species Initiative continued to affect international migratory bird conservation priority issues. Such issues include the decline of Ivory Gull population and international harvests of murres and eiders; and • Updating of Joint Ventures implementation and strategic plans are progressing based on the recommendations of the *North American Waterfowl Management Plan Continental Assessment Report*.[8]
For further information: Environmental Acts and Regulations: http://www.ec.gc.ca/EnviroRegs/ENG/Default.cfm Canadian Biodiversity Information Network (CBIN): http://www.cbin.ec.gc.ca/index.cfm Canadian Wildlife Service (CWS): http://www.cws-scf.ec.gc.ca/index_e.cfm CEPA Environmental Registry: http://www.ec.gc.ca/CEPARegistry/default.cfm Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): http://www.cites.ec.gc.ca/eng/sct0/index_e.cfm CWS Ecological Gifts Program: http://www.cws-scf.ec.gc.ca/egp-pde/default.asp CWS Enforcement Branch: http://www.cws-scf.ec.gc.ca/enforce/index_e.cfm	

[8] North American Waterfowl Management Plan: http://www.nawmp.ca/eng/pub_e.html

Environmental Damages Fund: http://atlantic-web1.ns.ec.gc.ca/edf/ CWS Habitat Stewardship Program for Species at Risk: http://www.cws-scf.ec.gc.ca/hsp-pih/ Formative Evaluation of Federal Species at Risk Programs: http://www.ec.gc.ca/ae-ve/default.asp?lang=En&n=F2F5FD59-1

Expected Result: Land and landscapes are managed sustainably	
Activities: Protecting and conserving specific critical habitats; facilitating a national evolution toward systems of integrated landscape management.	
Key Indicator	**Progress in 2006-2007**
Percentage of area (km^2) of conserved wildlife habitat that is under direct Environment Canada protection or protected through departmental partnerships and influence*	Progress for this indicator include the following: • Environment Canada protected 11.8 million hectares in National Wildlife Areas or Migratory Bird Sanctuaries; • There were 69 donations of ecologically sensitive land completed under the Ecological Gifts Program in 2006-2007. This is an addition of 4,575 hectares of conserves to privately held land valued at $35 million; and • Habitat protection activities resulted in the legally binding protection of 17,000 hectares of habitat and in the non-binding protection of 200,000 hectares of habitat involving 1,200 landowners. Moreover, habitat improvement activities have improved 16,000 hectares of habitat as well as 230 kilometres of shoreline involving more than 2,000 people.
For further information: National Wildlife Areas: http://www.mb.ec.gc.ca/nature/whp/nwa/df06s00.en.html The Atlas of Canada – National Wildlife Area: http://atlas.nrcan.gc.ca/site/english/maps/peopleandsociety/nunavut/specialplaces/nationalwildlifeareas The Atlas of Canada – Migratory Bird Sanctuaries: http://atlas.nrcan.gc.ca/site/english/maps/peopleandsociety/tourismattractions/ecotourism/mbsincanada	

*More details for the Habitat Stewardship Program will be presented in the *Habitat Stewardship Program Annual Report for 2006-2007.*

Program Activity: Water is clean, safe and secure

What is the issue?

Water is emerging as a critical issue in the 21st century. While Canada is recognized around the world for its natural wealth in water resources, these resources are at risk. Despite significant reductions in point source discharges of contaminants, other key sources of pollution remain, including emerging chemicals, about which little is known. Approximately one trillion litres of primary or untreated sewage pour into our water every year. Losses of wetlands continue: 68% of original wetlands in southern Ontario, and 75% of those in south-western Manitoba have been converted from their natural state. Threats to water quality include the release, redistribution and bio-magnification of contaminants. Adopting an ecosystem or watershed management approach is important to maintaining healthy ecosystems and protecting human health.[9]

Water is also an essential resource for important areas of Canada's economy such as agriculture, pulp and paper, oil and gas, electric power generation and transportation, as well as tourism and

[9] Environment Canada, *2006-2007 Report on Plans and Priorities*: http://www.tbs-sct.gc.ca/rpp/0708/ec-ec/ec-ec_e.asp

other recreational uses. Urban population growth has resulted in pressures on infrastructure for water, and economic development is creating competing sectoral demand for scarce water resources. Flooding in Canada has had an economic impact in the millions of dollars.

Environment Canada is monitoring water levels within the Great Lakes, with the latest data showing all are below seasonal averages, and Lake Superior experiencing record low water levels.

Environment Canada will be participating in an International Joint Commission initiative to study and update the Regulation Plan for Lake Superior and to investigate changes in St. Clair River and their impact on Lakes Huron / Michigan.

The annual *Canadian Environmental Sustainability Indicators*[10] report released in November 2006 highlighted key findings on the current status of freshwater quality in Canada. The Water Quality Index, endorsed by the Canadian Council of Ministers of the Environment, was the indicator used to summarize the extent to which water quality guidelines for the protection of aquatic life (e.g. plants, invertebrates and fishes) are exceeded in Canadian rivers and lakes. Highlights of the 340 surface freshwater qualities across southern Canada are as follows:

- 44% of the sites were rated as "good" or "excellent";
- 34% of the sites were rated as "fair"; and
- 22% of the sites were rated as "marginal" or "poor".

Freshwater quality ratings at 30 sites across northern Canada are as follows:

- 67% of the sites were rated as "good" or "excellent";
- 20% of the sites were rated as "fair"; and
- 13% of the sites were rated as "marginal" or "poor".

What are we doing about it?

This program activity is designed to provide science and policy leadership with regards to water quality, quantity and usage. Sciences under this program are focused on monitoring and research to understand what the changes and reasons to the aquatic ecosystems. By providing science-based tools to empower Canadians to take action, new developments in water policy and resource management include the following:

- Announcement of measures to ensure clean and safe water for Canadians;
- Enhancement of inter-jurisdictional relations and governance structures;
- Improvement of federal water management across departments;
- Identification of actions to restore and preserve Canada's water resources;
- Promotion of wise and efficient water management practices; and
- Protection of Canadian water related interests globally.

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[10] Canadian Environmental Sustainability Indicators: http://www.statcan.ca/english/freepub/16-251-XIE/16-251-XIE2005000.htm

Are we succeeding?

Securing clean and safe water for people and ecosystems requires a shared vision. The actions to ensure clean water announced in Budget 2007 will assist to focus efforts to preserve and protect Canada's water resources.

Canada has established multiple institutional arrangements that bridge areas of responsibility. International aspects of water management are led by the federal government while trans-boundary Canada-U.S. waters are managed through the International Joint Commission. Judicial interpretation of Canada's constitution has held that the provinces are the primary managers of water in Canada and are responsible for much of the environmental regulation and policies that affect water issues. Environment Canada is collaborating with provincial and territorial governments on environmental priorities of national concern.

Water bodies and watersheds frequently extend across provincial and national boundaries; as a result, Canada has established a number of institutional arrangements that help to address matters of shared jurisdiction pertaining to waters that span across provincial borders. These water bodies include the Prairie Provinces Water Board, the Lake of the Woods Control Board, the Ottawa River Regulation Planning Board, and the Mackenzie River Basin Board. Furthermore, all governments have policy and regulatory levers that can be deployed in support of water management. A central challenge of water management in Canada is to ensure that those levers are used in a harmonized and collaborative manner that is ecologically, socially and economically beneficial.

Federally, 19 departments are working together to strengthen the integration of efforts, continued development and application of an approach of enforceable national water quality guidelines, and effective handling of challenges in the management of federal facilities and lands.

Major programs and initiatives

Expected Result: Aquatic ecosystems are conserved and protected	
Activities: Implementation of initiatives to ensure clean and safe water, water science and technology integration, water management performance promotion, water quality and aquatic ecosystem monitoring and reporting, research on hydrology and the impacts of human activities and the effects of contaminants and other substances of concern on aquatic ecosystems and water resources, research and development on the conservation and remediation of water resources, science and technology support to water activities and water education and engagement.	
Key Indicators	**Progress in 2006-2007**
Economic, social and environmental benefits accrue to Canadians through sustainable and productive use of water resources and Canadians have access to safe drinking water and human health is protected from water quality and quantity-related threats	Work conducted in this area during the planning period produced new scientific knowledge and understanding on the impacts of stressors on Canada's aquatic ecosystems and enhanced our capacity to develop actions to achieve results. Key accomplishments included: • Work on Lake Winnipeg and Red River watersheds was initiated: research and monitoring activities were initiated to address nutrient management issues; an agreement was negotiated with Lake Winnipeg Research Consortium to assist in the delivery of a science program and support was provided to the International Joint Commission for conducting parasite or pathogens surveys of Devils Lake, Red River Basin and Lake Winnipeg; • An Upper Great Lakes study to develop a sustainable outflow regulation plan for Lake Superior was announced and work initiated. Environment Canada provided input to the Government of Canada position on regulation criteria for the Lake

	Ontario-St. Lawrence River Study and the final report on the Great Lakes-St. Lawrence Seaway; • The restoration of designated degraded sites within the Great Lakes Areas of Concern and the St. Lawrence River was advanced by supporting 58 habitat, contaminated sediments and municipal wastewater projects; • Environment Canada commitments to the First Nations Water Management Strategy. This includes the implementation of a turbidity monitoring project at Conne River First Nation in Newfoundland and Labrador; • In collaboration with Statistics Canada and Health Canada, Environment Canada continued implementation of a nationally integrated water quality monitoring network as based on the release of the water quality component of the second *Canadian Environmental Sustainability Indicators* report. In addition, Environment negotiated with provinces and territories without water quality monitoring agreements and assisted in the development of the Status and Trends report on priority issues and areas of concern (e.g. National report on pesticides findings of Cycle one water surveillance project, environmental progress information provided for the Lakewide Management Plan, State of the Lakes Ecosystem Conference and Great Lakes Bi-national Toxics Strategy Program), the enhancement of the Canadian Aquatic Biodiversity Information Network by the design and implementation of 110 aquatic bio-monitoring pilot reference sites in partnership with Parks Canada Agency and the Department of Fisheries and Oceans and the development of a national training program for Environment Canada and partners; • An evaluation of the Canadian Shellfish Sanitation Program was launched by the Canadian Food Inspection Agency, the Department of Fisheries and Oceans, and Environment Canada to address interdepartmental issues and seek solutions to a comparison study between Canada and U.S. procedures conducted by United States Food and Drug Administration; • New research on the impacts of contaminants and other substances of concern on aquatic ecosystems and water resources included: o Synthesis reports on Arctic contamination and effects; microbial source tracking; coordination of pharmaceuticals and personal care products research and monitoring across Environment Canada, and with other government departments and provinces; initiation of a research program on hazards of nano-materials and development of a suite of rapid toxicity assays for contaminants. • New scientific knowledge to improve understanding of impacts of the climate change or variability and land-use change on hydrology and ecology included: o Completion of a special issue of Advanced Nano-structured Surfaces for the Control of Bio-fouling –Climate Impacts on Arctic Freshwater Ecosystems and Fisheries; o Assessment of groundwater processes such as recharge, flow, and discharge within the Great Lakes region and the impact of climate and climate change on lake physics (e.g. heat, temperature, flux, heat content, hydrology, currents) and aquatic ecosystem components (e.g. water quality); o Research on new approaches for assessing the impacts of agricultural land use on the structure and function of aquatic ecosystems; o Improved understanding on watershed-scale assessments for sustainability of fluvial habitats and biodiversity; enhanced understanding of: watershed hydrologic processes and the development of improved hydrologic models, new approaches for assessing the status and impacts of northern development (e.g. oil and gas) on, water resources and new capability to assess and predict the effects of natural and anthropogenic changes on ecosystem productivity

	and services (e.g. development of a predictive model of minimal nocturnal oxygen concentrations in relation to habitat quality indices; o Enhanced understanding of the impacts of habitat alterations and fragmentation on aquatic ecosystem structure and function (e.g. influence of hydrology on water quality in the St. Lawrence River; o Parasite communities in agricultural wetlands and the effects on habitat); o Development of a national invasive species research and monitoring strategy, including Dydimo; and o Determination of the effectiveness and the residual toxicity of various ballast treatment methods to control exotic or invasive species. • New research and techniques for the rehabilitation and conservation of water resources including: a national assessment of arsenic and perchlorate in groundwater; report on contaminant releases from mine waste; development of best management practices for storm-water management; demonstrated technologies such as re-circulating sand filter, pharmaceuticals and personal care product treatment; research on the characterization, assessment, remediation techniques and recovery evaluation for contaminated sediments; assessment of groundwater quality and improved remediation approaches for degraded groundwater; cost-effective urban wet weather pollution and wastewater treatment technologies and management; Lake-wide and coastal research for sustainable water quality, LaMPs, Areas of Concern, taste and odour, and cyanotoxins.
For further information: International Joint Commission: http://www.losl.org/about/about-e.html First Nations Water Management Strategy: http://www.ainc-inac.gc.ca/H2O/bkg_e.html Canadian Shellfish Sanitation Program: http://www.inspection.gc.ca/english/anima/fispoi/csspccsme.shtml	

Program Activity: Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes

What is the issue?

In an effort to respond to unique environmental and sustainability issues of targeted ecosystems across Canada, Priority Ecosystem Initiatives (PEIs) have been developed. Through the application of an ecosystem approach, the objective of PEIs is to attain the highest level of environmental quality within these targeted ecosystems. The initiatives are means to enhance the health and safety of Canadians, the preservation of natural environments, and the optimization of economic competitiveness.

Integrated and informed planning enhance the efficiency of programs and enable activities to be aligned to a shared agenda comprising common priorities, goals, and objectives. Planning can also lead to increased co-operation and co-ordination of efforts between governments and partners. The activities of PEIs are implemented by a broad spectrum of partners and rely on measurable environmental results, collaborative governance mechanisms, sound and integrated science and monitoring, community and citizen engagements, sharing of knowledge and experiences, and informed planning and decision-making.

The key role of Environment Canada's Environmental Assessment Program is to contribute to the integration of ecosystems management within the decision-making processes. The number of complex and important projects that could potentially impact ecosystem sustainability has been

increasing steadily. In 2006, Environment Canada experienced a six-fold increase in the assessments of these projects. In response to the Cabinet Directive on Implementing the *Canadian Environmental Assessment Act*, the Department is engaging in a series of initiatives designed to improve the predictability and efficiency of the EA process (e.g. Interim Scoping Approach) with other departments.

Environment Canada is seeking to increase its usage of the ecosystem approach to environmental management. In order to strengthen horizontality and interactions within the government, the development and implementation of an Environmental Assessment framework are required.

What are we doing about it?

Environment Canada is engaged in the following six Priority Ecosystem Initiatives: the Atlantic Canada Ecosystem and Communities Initiative, the Georgia Basin Action Plan, the Great Lakes Basin Ecosystem Initiative, the Northern Ecosystem Initiative (NEI), the St. Lawrence Plan, and the Western Boreal Conservation Initiative.

Environment Canada has implemented innovative approaches (e.g. adaptive management, cumulative effects assessments) and has leveraged partners' ecological monitoring data to provide decision-makers with a better understanding of the impacts at an ecosystem level. To increase the efficiency of the environmental assessment process, the Department has commenced the implementation of a program management framework.

Are we succeeding?

Priority Ecosystem Initiatives are working to restore and enhance elements of environmental quality in the targeted ecosystems. By using available resources, these initiatives produce sound sciences and contribute to the establishment of strong partnerships that operate collectively to address priority issues in these targeted areas. Each year, a variety of products, tools, and information are produced by these initiatives. The following are examples of collaborative works in 2006-2007:

- Supports for community-based efforts were continued for Atlantic Canada through 16 Atlantic Coastal Action Program organizations and five larger ecosystem-based coalitions. Environment Canada's investments were leveraged on an average of three to six times by the groups. The Northern Ecosystem Initiative partnered with other stakeholders to support 29 projects. Progress was also made with the 14 primary intervention zone community groups along the St. Lawrence River;
- In March 2007, the Government of Canada completed the negotiation of a draft Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem. Following a public comment period, a new Agreement came into effect at the end of June, renewing a 36-year commitment between the governments of Canada and Ontario to protect the Great Lakes. The Agreement encompasses the clean-up of the Areas of Concern, which includes the reduction of harmful pollutants, the improvement of water quality, the conservation of fish and wildlife habitat, and the improvement of land management practices;
- In 2006-2007, the Great Lakes Sustainability Fund supported 49 projects in the ten Canadian and five Canada-U.S. joint Areas of Concern designated pursuant to the Canada-U.S. Great Lakes Water Quality Agreement. Total investment was $2.4 million. The

projects supported the remediation of contaminated sediments, restoration of degraded habitat, and the reduction of harmful pollutants in rural and urban wastewater and storm water runoffs. These efforts contribute to meeting Canada's commitment to restoring environmental use impairments in the most degraded locations within the Great Lakes;

- Environment Canada, the U.S. Environmental Protection Agency and other partners released a joint, trans-boundary environmental indicators report. Nine ecosystem indicators were examined to describe the stressors and human responses affecting the bi-national area of the Puget Sound in the U.S. and the Georgia Basin in Canada. The indicators include in the *Georgia Basin-Puget Sound Ecosystem Indicators Report*[11] include the following: Population Health; Urbanization and Forest Change; Solid Waste and Recycling; River, Stream and Lake Quality; Shellfish; Air Quality; Marine Species at Risk; Toxics in Harbor Seals, and Marine Water Quality;
- Active participation of representatives from the Council of Yukon First Nations, Dene Nation, Inuit Tapiriit Kanatami, and Labrador's Innu Nation in the NEI Steering Committee have broadened insights and understandings of community concerns; and
- The Georgia Basin Action Plan PEI was evaluated during 2006-2007 and 2007-2008. The evaluation will provide recommendations at both the level of this PEI as well as more broadly across this approach.

An Ecosystem Approach to Environmental Management was introduced within the Department in 2006. This approach will help the department to define and implement programs, tools and systems required to improve the understanding, assessment, and actions required for the restoration, conservation and enhancement of Canadian ecosystems.

Major programs and initiatives

<table>
<tr><td colspan="2">Expected Result: Integrated information and knowledge enable integrated approaches to protecting and conserving priority ecosystems</td></tr>
<tr><td colspan="2">Activities: Management (e.g. development and management of agreements and memoranda of understanding (MOUs), policy development, partnership management, performance measurement and assessment, strategic communications supporting effective delivery of priority ecosystems).
Community engagement and capacity development (e.g. activities related to the development, support and coordination of community engagement and capacity development in order to support effective delivery of priority ecosystems).
Integration (e.g. implementation of an ecosystem approach for the department, development of a Priority Ecosystem Management Framework, coordination of priority ecosystems to achieve better integration and effectiveness amongst various initiatives).
Action (e.g. integrated implementation of activities and program that lead to the improvement of the state (environmental quality) of priority ecosystems across the country.</td></tr>
<tr><th>Key Indicators</th><th>Progress in 2006-2007</th></tr>
<tr><td>Declassification of special areas (e.g. areas of concern, restricted fishing areas)</td><td>Progress for this indicator include the following:
• Restoration of sector 103 of the Montreal Harbour advanced well with dredging of contaminated sediments to be finished during the summer of 2007 at a total cost to the four financial partners of $10 million;
• Restoration of the mouth of the St. Louis River was carried out during the summer of 2006 at a cost of $8 million to the two financial partners;</td></tr>
</table>

[11] *Georgia Basin-Puget Sound Ecosystem Indicators Report*: http://www.pyr.ec.gc.ca/georgiabasin/reports/EnvInd_Report/summary_e.htm

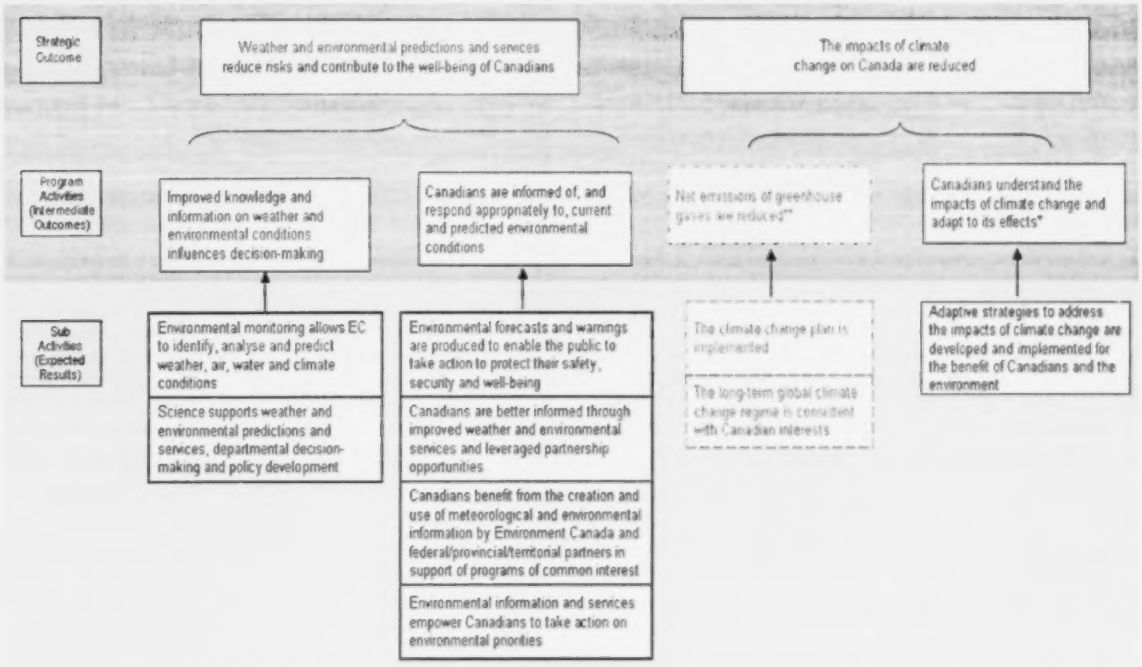
	• Two areas in the Great Lakes (Severn Sound and Collingwood Harbour) are no longer on the list of Areas of Concern (AOC) and Spanish Harbour is now classified as an Area in Recovery; • Progress towards rehabilitating ecological systems in all remaining AOC's continues to be made. Work plans have been developed and priority actions have been identified. Implementation frameworks in priority AOC's were renewed and strengthened in 2006-2007; • Stage 2 RAP Updates were prepared for the St. Lawrence River and Niagara Rivers AOCs in 2006-2007, which identifies environmental impairments and remedial actions to rectify them; • A joint federal-provincial Sediment Decision Making Framework was approved for release; and • Biennial bi-national LaMP updates were produced for Lakes Superior, Erie and Ontario, and a bi-national Action Plan for Lake Huron was updated in 2006. A Canadian technical report assessing environmental conditions and the causes of degradation in Lake St Clair was produced. The development of a bi-national program for Lake St. Clair is underway.
Number of partnerships established and/or maintained	Progress for this indicator include the following: • Fourteen existing sites from the Atlantic Coastal Action Program were maintained and two new partnerships from two new ACAP sites in Labrador were added; • Each Community Access Program sites nurtured partnerships with government departments, businesses, academia, community organizations, and local citizens; • Environment Canada partnered with two intergovernmental and regional-wide coordination bodies (Atlantic Coastal Zone Information Steering Committee, Nova Scotia Sustainable Communities Initiative), three larger-scale ecosystem-based coalitions (Gulf of Maine Council on the Marine Environment, Southern Gulf of St. Lawrence Coalition on Sustainability, Bras d'Or Collaborative Environmental Planning Initiative), and three Department of Fisheries and Oceans-led Large Ocean Management Area Initiatives (Eastern Scotian Shelf Integrated Ocean Management, Gulf of St. Lawrence Integrated Management, Placentia Bay or Grand Banks Integrated Ocean Management); • For the St. Lawrence Action Plan, partnerships were maintained with federal and provincial partners, the 14 primary intervention zone community groups, and others organizations. In addition, two new and important partnership initiatives were set up: Provisory Integrated Management of the St. Lawrence Committee (17 partners) and the St. Lawrence Global Observatory Corporation (network of 30 partners); • The Great Lakes Basin Ecosystem Initiative engages a large number of federal, provincial, state and municipal government agencies, Aboriginal participation, industry, non-governmental organizations and other stakeholders in the processes of restoring, protecting and conserving the Great Lakes. Several Memoranda of Understanding were negotiated with long-time partners; these include conservation authorities to support local implementation structures for the St. Lawrence, Niagara, Toronto, Hamilton, Quinte and Detroit areas of concern and lakewide management activities. The Great Lakes Bi-national Toxic Strategy also calls on a large number of industrial partners to meet reduction goals; • Approximately 125 partnerships are established and/or maintained for the Western Boreal Conservation Initiative. These partnerships span provincial, territorial, federal and Aboriginal governments, non-governmental organisations, industry and academia, and together work to support sound decision-making, adaptive management and best practices for boreal conservation. Significant partnerships include Ducks Unlimited Canada, Sustainable Forest Management Network and the Alberta Biodiversity Monitoring Initiative, among others; • On the Pacific Coast, the ongoing partnerships with the Georgia Basin Action Plan

	include other federal, provincial signatory partners, the Coast Salish First Nations, local and regional governments, non-profit organizations, and other project level community groups. Additionally, through the Statement of Cooperation, the United States Environmental Protection Agency is also an important partner.; and • In Northern Canada, partnerships with Aboriginal organizations such as the Council of Yukon First Nations, Dene Nation, Inuit Tapiriit Kanatami, and Labrador's Innu Nation help to shape the priorities and direction of the Northern Ecosystem Initiative.
For Further Information: Ecosystem Initiatives: http://www.ec.gc.ca/ecosyst/backgrounder.html Atlantic Coastal Action Program: http://atlantic-web1.ns.ec.gc.ca/community/acap/ St. Lawrence Plan: http://www.planstlaurent.qc.ca Great Lakes Basin Ecosystem Initiative: http://www.on.ec.gc.ca/greatlakes/ Western Boreal Conservation Initiative: http://www.pnr-rpn.ec.gc.ca/boreal Georgia Basin Action Plan: http://www.pyr.ec.gc.ca/georgiabasin/index_e.htm Northern Ecosystem Initiative: http://www.pnr-rpn.ec.gc.ca/nature/ecosystems/nei-ien/index.en.html	

Expected Result: Assessment and decision-making support the health of the ecosystem	
Activities: Information, assessment and understanding of the state of ecosystem sustainability support decision-making.	
Key Indicators	**Progress in 2006-2007**
New management approaches in project environmental assessments and strategic environmental assessments are implemented	Progress for this indicator include the following: • Environment Canada engaged in the strategic approach to support the cabinet directive on implementing the *Canadian Environmental Assessment Act* (CEAA). Efforts were focused on the consolidation of the federal Environmental Assessment process; • Implemented Environment Canada's Interim Scoping Decision Framework in support of the cabinet directive on implementing the CEAA and the Interim Approach for Determining Scope of Project for Major Development Proposals with Specific Regulatory Triggers under the CEAA; • Environment Canada focused on the implementation of a program management framework that included mechanisms and procedures to improve the efficiency of the Environmental Assessment process; • Implemented an Adaptive Management Strategy between Environment Canada and the Vancouver Port Authority; • Implemented "A Strategy for Environment Canada's Environmental Assessment Follow-up Activities in Ontario"; and • Established a cumulative effects assessment approach to address water and species at risk concerns with regard to oil sands projects.
Establishment of strategic partnerships to advance ecosystem sustainability and decision-making	Progress for this indicator include the following: • The Ecological Monitoring and Assessment Network Coordinating office maintained a network of over 600 organizations and individuals involved in ecosystem monitoring in Canada; • Environment Canada negotiated its interests in New Brunswick's provincial guidelines to address potential environmental impacts associated with a proposed refinery project. This interim approach for determining the scope of project for major development proposals with specific regulatory triggers can be found within the *Canadian Environmental Assessment Act*; • The Western Boreal Conservation Initiative, partnered with the Boreal Ecosystem Assessment for Conservation Networks (among others), continued to spearhead a premier effort to develop national-scale models that predict distribution and

	abundance of boreal birds in response to climate and habitat.; • The Western Boreal Conservation Initiative continued support of science to develop best practices for biodiversity management in boreal forests that are undergoing forest harvesting and other forms of development; and • Through the Western Boreal Conservation Initiative, Environment Canada continued support to the Sustainable Forest Management Network, a national science network of research institutions, forest industry, federal, provincial, territorial & Aboriginal governments across Canada. Projects supported included syntheses on climate change impacts on forest management in Canada, best practices for management of biodiversity in forests (including protected areas) and for management of water resources in forests, market incentives as tools for conservation, and policy design for integrated land management
Increased capacity of Canadian monitoring organizations to implement effective, relevant ecological monitoring programs	Progress for this indicator include the following: • Continuing to facilitate community monitoring and citizen science to provide consistent data on key parameters; and • Facilitated by the Western Boreal Conservation Initiative, EC support continued for prototype development and launch of the Alberta Biodiversity Monitoring Initiative, a large scale, long-term, multi-partnered, biodiversity monitoring program across the province of Alberta.
For further information: Ecological Monitoring and Assessment Network: http://www.eman-rese.ca/ Environmental Assessment Program: http://www.ec.gc.ca/ea-ee	

Strategic Outcome 2: Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians and Strategic Outcome 4: The impacts of climate change on Canada are reduced


Strategic Outcome
Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians
The impacts of climate change on Canada are reduced
Program Activities (Intermediate Outcomes)
Improved knowledge and information on weather and environmental conditions influences decision-making
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions
Net emissions of greenhouse gases are reduced**
Canadians understand the impacts of climate change and adapt to its effects*
Sub Activities (Expected Results)
Environmental monitoring allows EC to identify, analyse and predict weather, air, water and climate conditions
Science supports weather and environmental predictions and services, departmental decision-making and policy development
Environmental forecasts and warnings are produced to enable the public to take action to protect their safety, security and well-being
Canadians are better informed through improved weather and environmental services and leveraged partnership opportunities
Canadians benefit from the creation and use of meteorological and environmental information by Environment Canada and federal/provincial/territorial partners in support of programs of common interest
Environmental information and services empower Canadians to take action on environmental priorities
The climate change plan is implemented
The long-term global climate change regime is consistent with Canadian interests
Adaptive strategies to address the impacts of climate change are developed and implemented for the benefit of Canadians and the environment

*Reporting on adaptation to the impacts of climate change is in this section because of the integrated nature of the work performed. Refer to PAA crosswalk for explanations regarding the Program Activity Architecture changes for 2007-2008.

**Reporting on the program activity of "Net emissions of greenhouse gases are reduced" has been relocated to Strategic Outcomes 3 and 4 of the document as a result of the integrated nature of the work performed.

OVERVIEW:

What is the issue?

Weather affects virtually all Canadians. Environmental conditions such as extremes in temperature and precipitation, variable lake levels, floods, winter storms, hurricanes, tornadoes, sea ice, road icing, atmospheric turbulence or smog episodes touch on all aspects of Canadian well-being. These conditions can have serious effects on public safety, the environment and the economy. The majority of disasters in Canada have been weather related both in terms of lives lost and economic impacts.[12]

A number of recent events demonstrate Canada's vulnerability to weather related events. Home, car and business insurers announced in April 2007 that companies are expecting to pay more

[12] Public Safety Canada, Canadian Disaster Database: http://www.securitepublique.gc.ca/res/em/cdd/index-en.asp

than $135 million to help British Columbians recover from the storms that struck earlier in the winter. In 2005, Toronto and the surrounding area were hit with a severe rainstorm and tornadoes that led to the second-largest insurance payout in Canada's history (the largest being the ice storm at an estimated $1.9 billion in damages).

Other phenomena like the melting of permafrost and Arctic ice, shifts in rain and snow patterns, or changes in the range of pests and diseases may have an even greater impact on economic sectors like transportation, natural resources, agriculture or recreation, as well as on public health. Risks to human health and safety and environmental quality can come from afar since the earth's atmosphere and water systems can transport chemicals. Entire economic sectors, such as forestry and fisheries, and the regional economies they support, may already be affected by climate change.

Thus, Canadians, whether as individuals, business persons or decision-makers, need reliable, accurate information on the environment's past, present and, especially, future states. This information enables them to reduce the detrimental impacts of dangerous conditions and to adapt to long-term changes so they can safeguard their health and safety while preserving the environment and improving the productivity, efficiency and resilience of the economy.

This strategic outcome is largely about user-focussed services and the supporting science and monitoring activities. It is the largest operational component within the organization. It is also a unique national asset, in that there is no counterpart in any other part of the nation and every part of the nation relies on its services.

What are we doing about it?

Environment Canada provides services and information that aim to reduce the risks that weather and environmental conditions at all scales pose to the health, safety, economy and environment of Canadians. These services mainly consist of the production and delivery of warnings of severe weather and other hazardous conditions, daily weather forecasts, information about the past, present or future states of the environment and how these states can affect human beings.

Environment Canada's products and services support weather-sensitive sectors, such as transportation, energy, agriculture, fisheries or tourism to improve productivity and competitiveness, and assist these sectors in making their operations more environmentally sustainable. These services help Canadians factor the environment into their decisions and adapt to the changing environment in a manner that reduces risks and maximizes opportunities.

The Department provides the federal government and its public-sector partners with scientifically defensible weather and environmental information to help develop effective policies on key issues such as clean air, clean water, water management and climate change. Environment Canada's large and complex monitoring network forms the foundation for almost all other activities within the department.

Are we succeeding?

Environment Canada has continued to meet this challenge and address these issues. Under this business line, the Department continues to provide Canadians with world class meteorological

and environmental information, predictions and services to ensure safety, ecosystem sustainability and enhanced economic activity.

There are a number of areas which illustrate how, over the past year, Environment Canada has been contributing to the economy, the environment and well-being of citizens. These include:

- Newfoundland and Labrador Weather Office - Following nine months of careful planning the office re-opened to better address the unique needs of this area;
- Operation LANCASTER - This Department of National Defence operation exercise was significantly impacted by weather and was designed to contribute to Canadian sovereignty in the Arctic; and
- Detection of Xenon gas in the Arctic - An important contribution related to the North Korean nuclear test of October 9, 2006 in which a successful application of in-house dispersion models by the Emergency Response Section of the Canadian Meteorological Centre confirmed the source of nuclear test related Xenon gas originated in North Korea.

Progress Against Priorities

To follow through on this priority area for 2006-2007, Environment Canada focused on the priorities listed below:

1. *Ensuring mandated Environment Canada service commitments continue to be met and improved. (Ongoing)*

Environment Canada continued to serve Canadians 24 hours a day, 365 days a year, to provide forecasts and other information about the weather, water quantity, ice conditions, Ultraviolet levels and air quality. In addition, the Department issues warnings regarding hazardous conditions whenever the situation warrants. For 2006-2007, approximately 1.5 million public weather forecasts, 444,000 aviation forecasts, 10,000 warnings of hazardous weather conditions (e.g. severe thunderstorms, tornadoes, heavy snowfall, freezing rain) were issued.

In addition, the Department continues to collect weather and water information from more than 6,000 locations in Canada. Environment Canada maintains one of the largest archives in Canada. This climate archive consists of more than 200,000 new entries per day.

2. *Improving the accuracy, timeliness of, and response to predictions and warnings of environmental hazards. (Ongoing)*

Significant improvements were made to the computer models simulating the atmosphere through the improved usage of satellite data, higher resolution, and improved science. The quality of models developed by Environment Canada is considered to be of same quality as other G7 countries. These computer models are contributing to improvements in other services, such as emergency responses, disaster mitigation, supports to the National Defence and Coast Guard operations, NAVCANADA and air quality predictions.

In 2006-2007, temperature forecasts were accurate within plus or minus 3 degrees 92 % of the time on day one, and 86% for day two. A new generation, high resolution (33 km) Global forecast model was implemented on October 31st, replacing the existing 100 km forecast model. The Global model is used for production of forecasts for day three and beyond. Such a major improvement to the system leads to an overall improvement of forecast services and expands Environment Canada's capacity for environmental prediction to the benefit of policy and decision makers in a wide range of applications.

Improvements to the "Weather Office", and the media web sites, along with other technological advances, helped to improve the accuracy of warnings and related information available for users in a timely manner. For example, improvements to the "Weather Office" website[13] internal processing and display now allow users to access and move around the website efficiently with fewer slowdowns. In addition, improvements to the hazards web site allowed decision makers to improve their understanding of the vulnerabilities to high impact environmental events and reduce the risks by incorporating this information into their emergency plans. Although the hazard information is only available as a graphical tool for the province of Ontario, a national service is under development.

3. *Empowering Canadians by developing services, products and tools for better environmental and socio-economic decision-making.*

Two examples of the tools that Environment Canada develops for Canadians are the Air Quality Health Index (AQHI) and the North-American Ensemble Forecast System (NAEFS).

Environment Canada completed the development of the AQHI in cooperation with Health Canada, provinces and municipalities. The AQHI provides a simple communication tool allowing Canadians to make decisions that minimize the potential impacts of air quality on their short-term health. Pilot tests of the index occurred in British Columbia and Nova Scotia in 2006 and one is now running in Toronto.

The NAEFS, which combines numerical weather predictions from Environment Canada and the U.S. National Centre for Environmental Prediction was implemented on October 31, 2006. This combination increases the reliability and accuracy of the atmospheric models. Experimental probabilistic forecast products from the NAEFS, which give specialized users the probability that given conditions will or will not occur during a given period, were made available on the "Weather Office" web site.

4. *Leading, nurturing, and enhancing international and domestic partnerships, for improved leveraging of resources and access to new information sources, science, technology and expertise.*

Environment Canada recognizes that building effective partnerships increases the value of services delivered to Canadians and improves the global contribution to science. The Department has developed partnerships with universities, the media, the private sector, emergency and civil defence authorities and all levels of government. Additionally, as the atmosphere does not

[13] Environment Canada, Weatheroffice: http://www.weatheroffice.gc.ca/canada_e.html

respect political boundaries, active participations as a respected member of the World Meteorological Organization and other international partners ensure benefits from the cooperation and daily exchange of data with countries around the world.

Various examples of partnerships include the following:

- The Ninjo Consortium-a cost-effective way to develop future workstations and other tools for forecasters, where the cost of development is shared between several countries;
- Environment Canada entered into partnership agreements with Transport Canada and the Department of Fisheries and Oceans to integrate aircraft ice reconnaissance with surveillance of marine pollution. This partnership allowed a 10% cost reduction in aircraft costs for services to the marine industry, while increasing capabilities for both environmental protection and ice information support to the marine shipping community. At the same time, it also allowed for the development of an innovative enhancement of domestic marine security patrols. Finally, it provides the on scene immediate airborne response to incidents detected by the Environment Canada Integrated Satellite Tracking of Pollution (ISTOP PROGRAM). Together, these programs have successfully detected numerous marine oil pollution incidents and have resulted in one court conviction;
- Partnerships with the U.S. National Oceanic and Atmospheric Administration, the U.S. Geological Survey, and the International Joint Commission in atmospheric, hydrologic and environmental domains have been beneficial. Sharing knowledge and expertise has increased the pace of progress in applied science, and broadened the quality and quantity of information. This has resulted in better information and services for Canadians;
- Environment Canada works with the meteorological private sector to enhance the delivery of specialized products and services. This support and collaboration has resulted in a healthy and diverse meteorological private sector with over 50 companies; and
- Volunteers continued to provide quality climate observations.

5. *Ensuring policy developers and decision-makers have timely environmental data and information and expert advice to support decision-making (through integrated monitoring, understanding and prediction of the atmosphere, hydrosphere, cryosphere and their interactions with the underlying physical and biological surface).*

Policy makers in other departments who are working on issues such as the Northern Strategy (Indian and Northern Affairs Canada), sovereignty (Foreign Affairs and International Trade Canada) and assessment of marine shipping (Transport Canada), have been provided with assessments of present and future Arctic ice conditions in a changing climate. This will help them assess what effects climate change will have on their policies and programs.

Climate data (e.g. historical weather conditions) are becoming more accessible to Canadians as a result of Climate Archive Online.[14] The website had 1.4 million user sessions in 2006-2007, continuing a steady 20% annual increase. Environment Canada has undertaken a project to improve and expand the management of the observational data. This will ensure that all data collected by government and all quality data contributed by partners are securely archived and

[14] Environment Canada, Climate Archive Online: http://climate.weatheroffice.ec.gc.ca

easily accessible for the future. Environment Canada has also developed several atmospheric impacts and adaptation studies targeting the needs of municipal and sector decision-makers.

6. *Service improvement and quality management where the service is clearly based on the needs of users.*

The Department has begun to implement an initiative to ensure that its meteorological services operate under a formal quality system compliant with the ISO 9001 standard. This system is expected to increase customer focus and develop a culture of continuous improvement across the Meteorological Service. Quality management certification is an increasing requirement of international organizations, particularly in civil aviation.

Increased contact and consultation with various economic sectors (e.g. hydro sector), largely through the new National Service Offices, has allowed the department to better understand the needs of its users, with the goal of translating this understanding into services more responsive to users' needs.

7. *Increasing capacity across the department for environmental prediction to address priority issues.*

Environment Canada is working on integrating knowledge of all aspects of the environment (e.g. physical, chemical and biological), to produce integrated environmental predictions with broad applications for clients and partners. A framework for Environmental Predictions is under development. In 2006-2007, a sampling of interest across Environment Canada and other departments was completed, and the approach to the framework strategy has been approved. This work involves interaction with client sectors in order to define the services which will be truly useful to clients.

A prototype modeling system for prediction of the transport and dispersion of hazardous materials in the urban environment was developed under a CRTI[15] project, a multi-departmental initiative.

[15] CRTI is the acronym for CBRNE Research and Technology Initiative, where CBRNE is the acronym for Chemical, Biological, Radiological, Nuclear and Explosives. CRTI is a multi-departmental initiative.

Investment

Program Activities	Financial Resources ($ millions)			Human Resources (FTEs)		
	Planned Spending	Total Authorities	Actual Spending	Planned	Actual	Difference
Improved knowledge and information on weather and environmental conditions influences decision-making	121.8	136.4	138.9	1,141	1,099	(42)
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	151.0	151.3	142.1	1,342	1,439	+97
Totals	**272.8**	**287.7**	**281.0**	**2,483**	**2,538**	**+55**

Note: Variations between the actual and planned number of FTEs are principally due to re-alignment of program activities. For an overall outlook on the number of FTEs, please see Table 1 - Comparison of Planned to Actual Spending (including Full-time Equivalents).

Program Activity: Improved knowledge and information on weather and environmental conditions influences decision-making

What is the issue?

Every day, communities, governments, industry and citizens must make short-term and long-term decisions affecting their health, their wealth and the quality of the environment. The availability of timely observational data and information is essential for generating knowledge and information for weather and environmental prediction, air quality forecasts, analyses of water quality and supply, and in the development of policy and regulations (e.g. climate change policy and building codes). Environmental prediction sciences deliver credible, relevant, integrated and usable environmental predictions, knowledge, advice and decision making tools on existing and emerging issues. Data and science help citizens, industry, communities and governments understand their vulnerabilities to conditions or threats, and enable them to take protective action for themselves and the environment, and to maximize their economic opportunities.

What are we doing about it?

Environmental prediction science and monitoring activities are used to detect hazardous conditions and to understand changes in the atmosphere (e.g. weather, climate, air quality and ultraviolet radiation), hydrosphere (e.g. water) and cryosphere (e.g. ice and snow).

Environment Canada monitors the environment, forecasts meteorological and other environmental conditions 24 hours a day, every day for local, regional and national regions. As part of an international effort to monitor and predict the state of the environment, the Department operates, across Canada, an extensive network of facilities to systematically observe the weather (e.g. surface and upper-air), water levels and flow, climate, lightning, air quality and more. In addition to the traditional observing sites, Canada operates a network of Doppler weather radars over the densely populated regions and a lightning network for most the country. While Canada has satellite reception stations, it is reliant on access to imagery from foreign-government-owned satellite systems. Data are exchanged with the international community through the auspices of

the World Meteorological Organization and the success of this exchange is very dependent on Canada contributing its share, especially from the Arctic. The Department augments its data and observations with a number of partner organizations in Canada and abroad. These data and observations are the foundation of Environment Canada products and services, policy decisions, and international obligations.

Knowledge of the environment not only means measuring what is happening to it, but also understanding the reason, a key factor in being able to forecast how the environment will evolve over time and the potential risks and opportunities due to the changing environment. To that end, the department is also extensively involved in atmospheric science. This science has permitted the development of sophisticated computer models which are a key tool for producing useful weather, climate and other environmental forecasts for Canadians.

Environment Canada's science is now expanding towards integrating knowledge of all aspects of the environment (e.g. physical, chemical and biological), making possible integrated environmental predictions with much broader applications. At the same time, with domestic and international science partners, the Department is working to provide decision-makers with science-based adaptation solutions that they need to risk-manage the impacts and vulnerabilities and optimize the opportunities as a result of the changing environment.

A key benefit of this program is to provide Canadians with improved knowledge, information, and tools on weather and environmental conditions. Examples include a better understanding of the causes of severe weather, the mechanisms which transport chemicals through the atmosphere, the impacts of human activity on the atmosphere, and atmospheric science-based models. These benefits will support the development of policy as well as the delivery of environmental services.

Are we succeeding?

Weather conditions continued to be monitored 24 hours a day, 365 days a year through national networks of surface observation stations, radar stations, lightning detection sensors, ships and buoys, and an upper air network. Canada, a world leader in using automated observing equipment, also has one of the most cost-efficient observing programs in the world. Environment Canada is currently assessing its capacity to maintain and manage these programs in light of emerging technologies and cooperatives (e.g. federal, provincial, territorial) and international initiatives.

In partnership with the territories, the Water Survey of Canada, within Environment Canada, successfully added seventeen new hydrometric stream gauges in the Baffin Region of Nunavut. The data collected will be used to determine the feasibility of establishing some hydroelectric projects on Baffin Island which would allow power generation to be converted from diesel to a cleaner renewable form. Although these stations have a shorter life cycle and are more costly to operate, this type of information is critical to environmental, economic and sovereignty decisions especially in Canada's north.

Though more work is required to ensure Environment Canada meets its targets, Environment Canada has modernized or replaced 175 monitoring stations since the inception of its vital modernization plan. Furthermore, as a part of its network of off-shore monitoring buoys,

Environment Canada has mounted seven beacons on drift-ice in the Arctic in support of the International Polar year.

Environment Canada's Canadian Meteorological Centre maintained a constant capacity for dispersion forecasts in case of nuclear releases (as per the Federal Nuclear Emergency Plan, and as a Regional Specialized Meteorological Centre for the World Meteorological Organization) and volcanic ash in the atmosphere (Volcanic Ash Advisory Centre for the International Civil Aviation Organization).

High quality observations of Ultraviolet (UV) irradiance and the state of the stratospheric ozone layer are necessary to inform Canadians about their exposure to UV radiation (though the UV Index). Environment Canada provides data through a national network of Brewer Spectrophotometers. Canada was invited to participate in the SAUNA (Sodankylä Total Column Ozone Intercomparison) comparisons to validate the quality of global ozone observations, including the World Meteorological Organization (WMO) Regional Calibration Centre for Europe in 2006 and 2007. The results of these two campaigns validated that the agreement between the WMO World and Regional Standards has been maintained to better than 1%.

The Department's scientists have made significant contributions to the International Panel on Climate Change (IPCC)'s Fourth Assessment Report on climate change science. Created in 1988, the IPCC has been charged to assess on a comprehensive, objective, open and transparent basis the best available scientific, technical and socio-economic information on climate change from around the world. Drawing on the works of experts worldwide, a series of publications, including the Fourth Assessment Report, have become standard works of reference, used worldwide by policy- and decision-makers, scientists, and other experts.

To support the development of green energy in Canada and around the world, Environment Canada scientists developed a national wind atlas and a state-of-the-art modeling and forecasting tool used for wind energy prospecting. Canada is now one of the few large-area countries in the world to have a comprehensive Wind Energy Atlas across its entire territory. The wind atlas software has been installed on the Chinese Meteorological Administration's supercomputer so that China can develop a country atlas to assist in the achievement of its ambitious target in wind power capacity of 30,000 megawatts by 2020.

Major programs and initiatives

Expected Result: Environmental monitoring allows Environment Canada to identify, analyze and predict weather, air, water and climate conditions	
Activities: Ensuring the acquisition, transmission, archiving and accessibility of weather, climate, hydrometric and other environmental observations essential to providing users with consistent, reliable data and information in a timely fashion	
Key Indicator	**Progress in 2006-2007**
Integrity of monitoring networks and of their operations (sustainable and affordable networks)	Progress for this indicator include the following: • Plans for life cycle management and published standards exist and have largely been met. The network density and life cycle management is undergoing evaluation due to emerging technology and current capacity; • The number of water gauging stations in the Ontario portion of the network increased in response to additional provincial funding;

	• Liabilities associated with previously closed stations were alleviated through clean-up and decontamination efforts; • Data was made available to all users in real time; • The Data Management Framework projects progressed towards the goal of strengthened data management and improved integrated data access for the Meteorological Service of Canada data sets; and • A renewed strategic evaluation and design effort was begun to ensure that monitoring networks will meet evolving user needs.
For further information: Water Survey of Canada: http://www.wsc.ec.gc.ca/ Meteorological Services of Canada: http://www.msc-smc.ec.gc.ca/msc/amwsd_e.html	

Expected Result: Science supports weather and environmental predictions and services, departmental decision-making and policy development	
Activities: Delivering credible, relevant, integrated and usable environmental predictions, environmental knowledge, advice, decision-making tools and information	
Key Indicator	**Progress in 2006-2007**
Science-driven improvements to quality and utility of weather and other environmental services, as expressed by accuracy and timeliness of forecasts and the degree to which environmental science influences policy development and decision-making	Progress for this indicator include the following: • More accurate numerical weather (e.g. global medium range; 2.5 km Limited Area Model) and environmental prediction systems (e.g. data assimilation techniques, land-surface modelling, watershed studies in all regions); • Studies on stratospheric chemistry with a fully coupled dynamical-chemical 4 dimensional-variation data assimilation system nearly completed through the European Space Agency contract; • Development of a Regional Atmosphere-Ocean-Ice forecast system for the St. Lawrence Estuary. This is accomplished through partnerships with Environment Canada, Fisheries and Oceans Canada, and Université du Québec à Rimouski; • Research support desk in the Edmonton storm prediction centre; • Landmark paper published on anthropogenic climate change detection at continental scales; • A new program of research, development and implementation of operational coupled atmosphere-ocean-ice assimilation and prediction system for Canada (Environment Canada, Department of Fisheries and Ocean, Department of National Defence, Mercator Océan Consortium). This is also the backbone of the Research and Development contribution to Environment Canada's Environmental Prediction Strategy; • Updated and improved version of the global ensemble prediction system with an improved assimilation system; • Contributing directly to Canadian Foundation for Climate and Atmospheric Sciences funded networks (e.g. Fluxnet, Canadian Carbon Program) and to international scientific organizations (e.g. International Polar Year, Arctic HYDRA, Hydrologic Ensemble Prediction Experiment) and international IJC board activities; • Operated the World Meteorological Organization-World Ozone and Ultraviolet Radiation Data Center archive for the collection and dissemination of UV and ozone data throughout the world; • Significant contribution to International Panel on Climate Change Fourth Assessment Report – Canadian lead authors and Canadian model results prominent; Working Group I (Science of Climate Change – four lead authors) released February 2007; • Improved representations of climate processes affecting energy, water and carbon fluxes implemented in climate models;

	• Developed new instrumentation and methods to obtain a better understanding of atmospheric chemistry and solar spectral resources for air quality and technological applications; • New insights into the ability of climate models to simulate extremes; • Long term data sets for Green House Gases (GHG), isotopes and aerosols publicly available through the World Meteorological Organization Global Data Centre for GHGs; and • High resolution databases of winds and waves for the North Atlantic and Beaufort Sea and climate trend and variability analyses, including a North Atlantic online atlas.
For further information: Atmospheric and Climate Science Directorate: http://www.msc-smc.ec.gc.ca/acsd/index_e.html Canadian Wind Energy Atlas: http://www.windatlas.ca/en/index.php Strategic Plan 2003-2012: http://www.msc-smc.ec.gc.ca/acsd/publications/StrategicPlan_2003_2012/strategic_plan_2003-2012_full/strategic_plan_full_e.pdf International Polar Year: http://www.ipy.org/ Hydrologic Ensemble Prediction Experiment: http://hydis8.eng.uci.edu/hepex/	

Program Activity: Canadians are informed of, and respond appropriately to, current and predicted environmental conditions and Canadians understand the impacts of climate change and adapt to its effects

What is the issue? While no one can prevent severe weather and other environmental events from happening, effective planning for the range of possible hazards and advance notice of impending dangerous conditions can significantly reduce the risks to Canadians and their businesses.

Weather and environmental information is used in making policy and business decisions, particularly in weather-sensitive sectors such as transportation, construction, energy and agriculture. It is not surprising; therefore, that demand is strong for public services. Public opinion research[16] indicates that the vast majority of Canadians consult weather forecasts every day, for their safety and day to day decisions (e.g. to plan travel and recreation). Increasingly, Canadians, governments at all levels, and private industries are seeking other types of environmental information, for example, on air quality or UV radiation. The department must respond to this demand.

What are we doing about it?

This program activity consists of making available relevant, science-based information and knowledge on past, present and future conditions of the atmosphere, hydrosphere and cryosphere, in response to the needs of Canadians, such as policy or decision makers, business owners or individuals. Under this program activity, information on the state of the environment is produced and disseminated by means of various services, products and tools allowing

[16] National Survey on Meteorological Products and Services, Decima Research May 2002 (surveyed residents of the ten provinces); Attitudes Toward Weather Information in the North, Environics Research Group, August 2005 (surveyed residents of the Yukon, the Northwest Territories, Nunavut and Nunavik)

Canadians to understand their risks, vulnerabilities and opportunities, safeguard themselves, their property and business against high impact environmental events and to help them make better informed socio-economic and environmental decisions.

For the Canadian public, Environment Canada's "Weather Office" web site remained the most popular federal site with about one third of all Government of Canada traffic. In 2006-2007, the "Weather Office" web site received 240 million visits, a 21%, increase over 2005-2006. Weather and climate related public feedback rose from an annual total of 16,000 to 17,000 in 2006-2007, a 6% rise in activity. The increasing level of interest and activity demonstrates the need of Canadians for essential weather and climate information.

In addition, Environment Canada maintains a national radio broadcast covering 95% of the population providing weather information and warnings. These services are further complimented by our automated and one-on-one telephone services which answer approximately 33 million calls a year.

Environment Canada also partners with key stakeholders such as the media to ensure that weather, environmental and atmospheric information reaches all that need and use it. In support of this key partner, Environment Canada maintains a National Service Office dedicated to the media as well as such tools as a dedicated web site.

Environment Canada works with partners where there is mutual interest. These partnerships, often conducted on a cost-recovery basis, yield benefits to all parties: the partners can access Environment Canada's expertise in producing and disseminating forecasts, while the department can maximize the use of its infrastructure while getting access to additional data and resources. The best known partnerships are with NAV CANADA, the provider of air navigation services, and the Department of National Defence, for services to the military, including overseas missions, and the Department of Fisheries and Oceans with respect to ice services. Another important partnership is with the organizing committee of the 2010 Winter Olympics in Vancouver, for the provision of meteorological support to the games, which leads to improved knowledge of meteorological processes in a marine, coastal environment.

Warning Preparedness Meteorologists (WPMs) made 1,100 contacts with Emergency Measures Organizations (EMOs), including training on how to use environmental prediction information and 8,477 media contacts during high impact environmental events. WPMs provided support to the media and EMOs during flood episodes (Newfoundland and Labrador, Manitoba and Québec), heavy rains and high winds in British Columbia, heat waves in Montréal, tropical storm Florence in Atlantic Canada and other summer severe weather events. Efforts by WPMs have resulted not only in weather information being now included in EMOs' emergency response plans, but also in EMOs now being able to use an expanded media Web site to access weather information in priority.

The public accesses historical climate information on the Climate Archive Online, a component of the weatheroffice.gc.ca web site. Public traffic on the site continues to increase at an annualized rate of 15% (1.4 million individual user sessions in 2006-2007). In response to various requests from the engineering sector, Environment Canada has formed or joined Task

Groups with the Canadian Council of Professional Engineers and the National Building Code Task Group on Climatic Loads to plan and coordinate updates of climatic information for the design of the physical infrastructure (e.g. stream flow and short term rainfall statistics for flood control structures, wind and snow loads buildings).

Information alone is not sufficient to empower Canadians to take action to preserve and protect ecosystems or species at risk: active engagement and outreach approaches are also essential. Through community-based funding, capacity support programs and education initiatives, Environment Canada encourages citizens to take action in their own communities to reduce waste, enhance the natural environment, and reduce air and water pollution.

Are we succeeding?

For the Canadian public, Environment Canada's "Weather Office" web site remained the most popular federal site with about one third of all Government of Canada traffic. While the "city page" forecast and observation information continue to be the top draw, improvements to the radar pages and other new products such as ensemble, model data output, and full radar imagery are also seeing increasing numbers.

Telephone consultation services for meteorological information delivered to weather sensitive clients (such as media, agriculture, forestry, energy, marine, and construction) have been consolidated into a single 1-900 platform. In addition to extending the hours of service, this has improved operational efficiencies and increased the range, equality, and consistency of services offered to Canadians. Over 30,000 calls were handled by weather experts. Weather sensitive clients have stated that direct access to consultation is critical for decision making when their safety or economy is at risk.

In addition, Environment Canada receives roughly 30 million calls annually on its automated telephone answering devices, which provide recorded weather information. Environment Canada is currently assessing the implementation of a national 511 system to improve this service.

Another sign of the importance that Canadians attach to weather and the environment consists of the approximately 17,000 enquiries received in 2006-2007 via the department's sites on weather and meteorology, a six-per-cent increase from one year earlier. In spite of that growth, over the year the average response time has decreased from 6.6 to 4.5 business days, as a result of the establishment of a dedicated enquiry response team. The Department aims to further reduce response times in coming years.

Ongoing support also continues to be provided to the military in Afghanistan. The Weather Service Centre in Trenton, Ontario, produces daily aerodrome forecast support to a Canadian Air Force forward operating base located in Southwest Asia used for re-supply missions into Kandahar and Kabul in support of the NATO Afghanistan operations.

With more than 60 countries participating in the international polar year, Environment Canada is doing its part to help ensure the safety of field researchers in the Canadian North and the success of scientific investigations. For example, a suite of new logistical support products such as charts

and Ice Hazard Bulletins for field operations has been developed and made available to the scientific communities.

Dispersion modeling was provided to regional and national Environment Canada Environment Emergency Coordinators in response to various environmental emergencies (chemical fires in Ontario during the summer of 2006, a January chemical fire in Montreal, a chemical spill in Surrey, British Columbia in February and summer of 2006 Prairie forest fires).

In addition to the Air Quality Health Index developed in cooperation with Health Canada, provinces and some municipalities, an air quality forecast and warning program called Info-Smog, which is a federal-Quebec government partnership, became a year-round program in 2006 and was expanded to new areas within Quebec.

Municipalities now recognize the need to become more resilient so they can more effectively withstand and quickly recover from high impact environmental events. To this end, municipalities and other decision-makers, in response to Ontario's *Emergency Management and Civil Protection Act*, downloaded some 230,000 pages of Environment Canada's information on the frequency and extremes of high impact environmental events. Municipalities in Québec also downloaded 200,000 pages of information needed in response to the *Québec Civil Security Act*. Finally, in an effort to prepare for high impact events in the longer term, decision-makers and policy makers downloaded 350,000 pages of information from the climate change scenarios website.

An example of developing adaptive strategies for climate change is the Environment Canada led study of sea-level rise and climate change impacts on the coastal zone of south-eastern New Brunswick. This study assessed potential impacts of flooding, coastal erosion, and damage due to forced sea ice movement caused by storm surge in the winter, as was the case with the benchmark storm of January 2000. The end results of the whole project are tools that will allow residents, government and industry to make informed decisions on how they plan to adapt to the effects of climate change.

Major programs and initiatives

Expected Result: Environmental forecasts and warnings are produced to enable the public to take action to protect their safety, security and well-being	
Activities: Identifying, predicting and informing all Canadians of changes in the atmospheric environment and of potential high-impact meteorological situations or events that have consequences for their safety and well-being	
Key Indicators	**Progress in 2006-2007**
Quality and lead times of warnings	Progress for this indicator include the following: • Continuous improvement of the automated routine forecast production tool to allow forecaster to focus on high impact weather; and • Consistent performance measures for warnings across all Regions are being developed and will be made available on a quarterly basis.
Accuracy of forecasts	Progress for this indicator include the following: • Temperature forecasts were accurate within +/-3 degrees 92% of the time on day one and 86% for day two; and

	• Canada typically ranks within the top five in the world when performance scores of numerical weather prediction (NWP) models are compared against those of other major NWP Centres.
Public satisfaction with quality as measured in surveys	In a public opinion survey done in March 2007, 84% of Canadians were satisfied or very satisfied with the accuracy of weather information and services provided by Environment Canada.
For further information: The Weather Office: http://weatheroffice.gc.ca Meteorological Services of Canada: http://www.msc-smc.ec.gc.ca/weather/contents_e.html National Climate Data and Information Archive: http://climate.weatheroffice.ec.gc.ca/Welcome_e.html	

Expected Result: Canadians are better informed through improved weather and environmental services and leveraged partnership opportunities	
Activities: Providing better access to and delivery of information; measuring performance; leveraging partnerships; and expanding the application of environmental prediction and information	
Key Indicators	**Progress in 2006-2007**
Level of satisfaction of public and weather-sensitive industries	Progress for this indicator include the following: • In a public opinion survey done in 2007, 84% of Canadians were satisfied or very satisfied with the accuracy of weather information and services provided by Environment Canada; and • The National Inquiry Response Team (NIRT) uses four categories to monitor client satisfaction. From the total volume, about 60% were inquiries, 23% were complaints, 6% were comments and 2% were suggestions. The NIRT also measures appreciative comments and positive feedback received after delivering a response or about services in general, and found that 10% of all public feedback is positive.
Improvements to key services for weather-sensitive industries	Progress for this indicator include the following: • Consolidation of a single 1-900 platform to serve the over 30,000 calls to Environment Canada weather experts for specific information for weather sensitive industries; • Technical and content improvements to weather office web page such as ensemble forecasting, current data, model output and full radar imagery made available to allow users to tailor information to their industry specific needs; • Outreach material and workshops have been conducted with targeted economic sectors such as agriculture, forestry, surface transportation, to increase awareness and determine requirements for probabilistic forecasts; and • Establishment of Agriculture (in Regina) and Marine (in Gander) National Service Offices finalized.
Level of access and enquiry for Environment Canada's products and services	Progress for this indicator include the following: • Weather and climate related public feedback channelled through the National Inquiry response Team (NIRT) rose from an annual total of 16,000 to 17,000 in 2006-2007, a 6% rise in activity. This is consistent with the continued growth of Environment Canada's "Weather Office" web site; and • NIRT's quality objective is to provide a response to client feedback within two business days. For service delivery the average lag time for clients to receive a response from the NIRT system averaged 6.6 days at the start of 2006-2007 and declined by 32% to 4.5 days by year's end.
Level of access to international monitoring data through initiatives such as the Global	Access to new data from international sources gained, including from MetOp-A (Europe), COSMIC (Taiwan and U.S.) and other satellite systems. Accessibility to global data maintained and enhanced through existing relationships with World Meteorological Organization, U.S. (National and Oceanographic and Atmospheric Administration and NASA), Europe (European Space Agency and EUMETSAT), and China (Chinese

Earth Observation (GEOSS) initiative	Meteorological Administration).

For further information:

Weather observations, forecasts and warnings: http://www.weatheroffice.gc.ca/canada_e.html

Meteorological Service of Canada: http://www.msc-smc.ec.gc.ca/contents_e.html

Air Quality Services: http://www.msc-smc.ec.gc.ca/aq_smog/index_e.cfm

Climate Services: http://www.climate.weatheroffice.ec.gc.ca/climateData/canada_e.html

Expected Result: Canadians benefit from the creation and use of meteorological and environmental information by Environment Canada and partners in support of programs of common interest

Activities: Providing partners with quality environmental information that allows them to improve the safety of their operations and maximize their efficiency.

Key Indicators	Progress in 2006-2007
Level of satisfaction of partner and client organizations	Progress for this indicator include the following: • Agreements with three British Columbia Ministries have been completed to allow for interagency data sharing and for observation network development in support of 2010; • Weather Services to the Olympics are still in the developmental stage, but progress is apparent. In Media interviews, Vancouver Organizing Committee for the 2010 Olympic and Paralympics Winter Games has expressed a very high level of satisfaction with weather services provided to date by Environment Canada; and • As the primary client of the Environment Canada Canadian Ice Service program, the Department of Fisheries and Oceans Canadian Coast Guard continues to express complete corporate satisfaction with ice products and services provided by the department under the "Ice Information Services Partnership Agreement". In addition, Canadian Coast Guard ship commanding officers routinely provide unsolicited, positive feedback, e.g. (CIS services) "allowed me to make routing/ planning decisions that resulted in an efficient and safe transit and also to maximise the program that we were able to deliver."
Accuracy and timeliness of services measured against performance benchmarks	Initial validation of practice forecasts provided for the 2010 Olympics during the 2007 winter season (January to March) indicates a very high level of skill in forecasts of temperature and humidity for outdoor venues. While there is reasonably good skill on forecasts of precipitation and wind, there is room to improve: • Critical weather element thresholds for outdoor sports have been established; and • A Canadian Ice Service Performance Measurement Program has been designed together between Environment Canada and the Department of Fisheries and Oceans Canadian Coast Guard based on Canadian Coast Guard (or main client) requirements under the "Ice Information Services Partnership Agreement". After initial implementation in the summer of 2005, several refinements were put in place over the reporting period. These include the production of two different Monthly and Seasonal standardized reports. These include, but are not limited to metrics such as delivery time, resources, and support by the Ice Reconnaissance Program, Satellite images usage, Communication usage, CIS web site usage, Informatics support and performance and any special Canadian Coast Guard requests.

For further information:

Validation study for Winter of 2007, Internal Report, Pacific and Yukon Region, Meteorological Service of Canada * Significant Weather Thresholds for Sport – PowerPoint presentation *

* Available from Meteorological Services Canada: Pacific and Yukon Regions

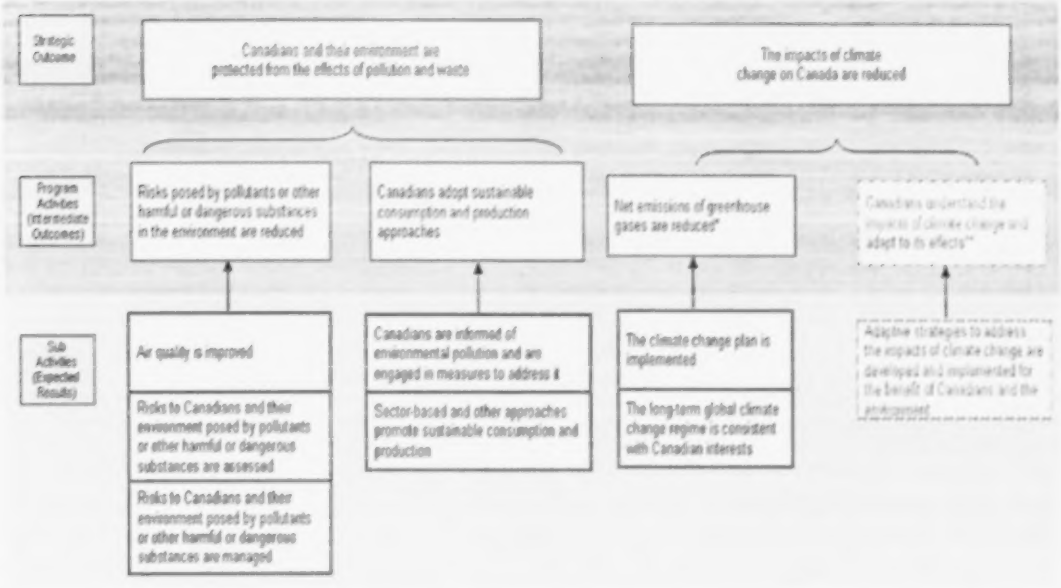
Expected Result: Environmental information and services empower Canadians to take action on environmental priorities	
Activities: Reaching out to Canadians with Environment Canada's science, knowledge and information in order to build their awareness; to inform and educate them about environmental issues, including actions they may need to take and influence others to take	
Key Indicators	**Progress in 2006-2007**
Extent to which Canadians are able to use a variety of environmental data and information in their decision-making and have the motivation and tools to take action and to influence others to do so	Progress for this indicator include the following: • A repositioning strategy and business plan for the Biosphere focused on the establishment of a unique Canadian Environmental Museum and the creation of a National Centre of expertise for Environmental Education and Engagement; • A Public Reporting Strategy on the National Pollutant Release Inventory (NPRI) and the Criteria Air Contaminants Comprehensive Emissions Inventories based on a series of recommendations is being implemented. The information products with integrated contextual information, targeted to NPRI's audiences, respond directly to advice from NPRI clients; • An integrated Education and Engagement (E&E) specialists' working group produced an inventory and analysis of departmental E&E products outlining best practices and proposed investment areas to coordinate development of new products and tools; and • A review of Community Funding Programs and a Community Funding Program Umbrella Logic Model with performance indicators and specific tools were completed to improve alignment with departmental results, increase efficiency, and improve service to clients. Implementation will begin over 2007-2008.
For further information: Biosphere: http://www.biosphere.ec.gc.ca National Pollutant Release Inventory: http://www.ec.gc.ca/NPRI-INRP-COMM/	

Formerly reported on under "Strategic Outcome 4: The impacts of climate change on Canada are reduced", work on the adaptive strategies to address the impact of climate change result was re-aligned to fall under "Strategic Outcome 2: Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians". It was felt that this particular research activity would benefit most from being closely associated with the climate and atmospheric science program, and the emerging environmental monitoring and prediction science initiative.

This follows from the fact that in order to research adaptive strategies to address the impacts of climate change, a very good knowledge of the characteristics and applicability of climate change science and scenarios are a key prerequisite. A good knowledge of climate and environmental trends is also needed, and again, this is mostly under the purview of the Weather and Environmental Services program area. A strong integrated service component is also required to deliver the information to a community of stakeholders which, for the most part, is captured by the clientele of the Weather and Environmental Services program area, and made easily accessible through its dissemination channels. Finally, most of the impetus for climate change science and impacts and adaptation science is given by programs closely linked to the UN World Meteorological Organisation (WMO), and the programs it has set up, such as the IPCC and the World Climate Research Program.

Expected Result: Adaptive strategies to address the impact of climate change are developed and implemented for the benefit of Canadians and the environment	
Activities: Focusing on the science and science capacity supporting the rapidly growing need for science-based adaptation advice that allows decision-makers to understand and risk-manage the impacts of a changing and variable climate and to optimize the opportunities, in natural, socio-economic and ecological systems.	
Key Indicators	**Progress in 2006-2007**
Level of awareness and understanding by economic sectors, OGD's and other levels of government of their vulnerability to atmospheric change enhanced.	Progress for this indicator include the following: • Provided information to members of the National Round Table on the Environment and the Economy, and the Canadian Council of Professional Engineers expert teams on infrastructure design for changing climate; • Published six peer-reviewed papers on the impacts and vulnerabilities of a changing and variable climate on public infrastructure; and • Expanded regional hazards information.
Canada's adaptation deficit reduced as measured by: • Reductions in the vulnerability to the built environment, human health and ecosystems • Reductions in the vulnerability and increased opportunities for economic competitiveness	Progress for this indicator include the following: • Achieved international climate science commitments with four Environment Canada staff representing Canada as Intergovernmental Panel on Climate Change Lead authors on Working Group II (Adaptation). Report released in April 2007; • Met international climate and sustainability commitments by participating in and making presentations to World Meteorological Organization (WMO) Expert Teams, WMO World Climate Conference III, United Nations Convention on Biological Diversity, Gulf of Maine Governors, and providing leadership on international Canadian International Development Agency projects; • Provided adaptation decision-support to provinces, municipalities, stakeholder associations, and others; and • Published on impacts and adaptation issues relevant to the Okanagan, Prairies, Great Lakes, Quebec Region and Atlantic Region).
For further information: Atmospheric Hazards: http://www.hazards.ca/ Climate Change Scenarios Network: http://www.ccsn.ca/ Adaptation and Impacts Research Group: http://www.msc-smc.ec.gc.ca/airg/index_e.cfm	

Strategic Outcome 3: Canadians and their environment are protected from the effects of pollution and waste and Strategic Outcome 4: The impacts of climate change on Canada are reduced


Strategic Outcome
Canadians and their environment are protected from the effects of pollution and waste
The impacts of climate change on Canada are reduced
Program Activities (Intermediate Outcomes)
Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced
Canadians adopt sustainable consumption and production approaches
Net emissions of greenhouse gases are reduced*
Sub Activities (Expected Results)
Air quality is improved
Risks to Canadians and their environment posed by pollutants or other harmful or dangerous substances are assessed
Risks to Canadians and their environment posed by pollutants or other harmful or dangerous substances are managed
Canadians are informed of environmental pollution and are engaged in measures to address it
Sector-based and other approaches promote sustainable consumption and production
The climate change plan is implemented
The long-term global climate change regime is consistent with Canadian interests

*Reporting on the greenhouse gas emissions reduction activity is in this section because of the integrated nature of the work performed. Refer to page 16 of the document for explanations regarding the Program Activity Architecture changes for 2007-2008.

**Reporting on the program activity of "Canadians understand the impacts of climate change and adapt to its effects" has been relocated to Strategic Outcomes 2 and 4 of the document as a result of the integrated nature of the work performed.

During 2006-2007, Environment Canada undertook a new approach to protect Canadians and their environment from the effects of pollution and waste. Through this new approach, which is reflected in our Program Activity Architecture for 2007-2008; the department seeks to accomplish the following:

- Reduce the risks to Canadians, their health and their environment posed by toxic and other harmful substances;
- Ensure Canadians adopt sustainable consumption and production approaches; and
- Reduce the risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions.

To reflect this new approach, reporting for Strategic Outcomes 3 and 4 is presented together in this section. The reporting of the Program Activity on *Adaptation to Climate Change* is presented in "Strategic Outcome 2: *Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians*".

Strategic Outcome 3: Canadians and their environment are protected from the effects of pollution and waste

OVERVIEW:

What is the issue?

Scientific research shows that human activities (particularly the use of fossil fuels and the clear-cutting of forests) are accelerating the concentration of greenhouse gases in the atmosphere. As a result, the earth's average temperature is getting warmer. This could have far-reaching environmental, social and economic consequences.

There are strong links between air pollution (smog) and health problems - especially for the elderly, children and for those with respiratory and cardiac problems. A large number of studies show that air pollution can lead to premature death, increased hospital admissions, more emergency room visits and higher rates of absenteeism.

There is evidence that some potentially hazardous chemicals are accumulating in humans and in our ecosystems-in lakes, rivers, wildlife and in the North.

What are we doing about it?

Environment Canada is taking strong regulatory action to protect Canadians and their environment from the effects of greenhouse gas emissions, air pollution and toxic substances.

The Government's environmental regulatory agenda will focus primarily on the development and implementation of regulations limiting allowable emissions from each of Canada's major industrial sectors, as well as from transportation activities and some consumer products. Industrial emitters are responsible for a significant proportion of Canada's overall air pollution and greenhouse gas emissions.

Similarly, the Chemicals Management Plan will result in the effective regulation and prevention of risks to the environment and health from the use of toxic substances.

Are we succeeding? Progress Against Priorities

In 2006-2007, two significant programs were announced as part of the Government's broad environmental agenda. They were as follows:

- The Chemicals Management Plan; and
- The Clean Air Regulatory Agenda.

The Chemicals Management Plan

The Chemicals Management Plan will improve the degree of protection against hazardous chemicals. It includes a number of new, proactive measures to make sure that chemical substances are managed properly.

Taking action now will significantly reduce future costs associated with water treatment, clean-up of contaminated sites, and treating illnesses related to chemical exposure. It will improve Canadians' quality of life, and better protect our environment. There are also chemical substances that have been identified as requiring further assessment in future years. The Government is committed to assessing all of the substances that have been identified through categorization via successive rounds of assessment and, where necessary, regulatory action. Continuously improved information on the uses and effects of chemical substances will help establish these next rounds of priorities. This plan includes the investments needed to get this work started, and to keep Canada at the forefront of chemicals management globally.

Managing chemicals safely also relies on strong stewardship from Canadian industry. The government is working with key sectors to develop and codify comprehensive sound management practices that will protect Canadians and the environment. The federal government will also work to ensure that information about chemical substances, their hazards and also practices for their safe management is available to Canadians.

The Clean Air Regulatory Agenda
The Clean Air Regulatory Agenda consists of the following, all of which were announced through a Notice of Intent in fall of 2006:

- the Regulatory Framework for Industrial Air Emissions, including targets, proposed compliance mechanisms, and an initial assessment of impacts of the framework on the health of Canadians, on the environment, and on the economy;
- Regulatory and other action for transportation sources;
- Regulatory and other actions for consumer and commercial products;
- The Regulatory Framework for Improving Indoor Air Quality;

Subsequent to the Notice of Intent to Regulate, the Government of Canada consulted on the development of the overall regulatory framework for key industrial sectors including fossil-fuel fired electricity generation, upstream oil and gas, downstream petroleum, base metal smelters, iron and steel, cement, forest products, and chemicals production.

In April 2007, the Federal Government announced *Turning the Corner*, an action plan for reducing greenhouse gases and air pollution, and made public the Regulatory Framework for Air Emissions. The Framework identifies measures to reduce emissions from industrial sources, transportation, and consumer and commercial products; more stringent energy efficiency standards; and address sources that affect indoor air quality.

For industrial emissions, the Framework sets a 2010 implementation date for emission reduction targets, as well as fixed emission caps for air pollutants that will enter into force as soon as possible between 2012 and 2015. The Framework contains compliance mechanisms intended to provide industry with flexibility in meeting its regulatory obligations. It also requires rigorous monitoring and reporting in order to ensure compliance assessment and transparency.

Canada's greenhouse gas emissions from all sources are expected to begin to decline as early as 2010 and no later than 2012. Thereafter, absolute emissions will continue to decline. The

Government is committed to reducing Canada's total emissions of greenhouse gases by 20% by 2020 and by 60% to 70% by 2050.

For air pollutants, Canada will set national air pollutant emissions targets that will produce tangible health and environmental benefits.

A national, long-term regulatory strategy gives industry the certainty, flexibility and opportunity to achieve real emission reductions while promoting Canadian competitiveness by encouraging technological innovation. Coordinating requirements within a multi-pollutant approach allows firms to make cost-effective decisions to maximize synergies in reducing their emissions.

The following is a summary of Environment Canada's progress against priorities established in the 2006-2007 *Report on Plans and Priorities*:

1. *Advancing priority actions for air quality and substances of concern including:*

   a. Developing a *Clean Air Act* as the basis for a comprehensive clean air strategy

      - Tabling of the *Clean Air Act* in Parliament (October 2006)

   b. Developing a comprehensive regulatory agenda on air pollutants and greenhouse gas emissions

      - "Notice of Intent to develop and implement regulations and other measures to reduce air emissions" (October, 2006);
      - Coordination of the Regulatory Framework for Air Emissions (April, 2007); and
      - Regulatory progress to reduce emissions including work on the following:

        - Final Amendments to the *On-Road Vehicle and Engine Emission Regulations* (published in the *Canada Gazette,* Part II, on November 15, 2006). These Amendments maintain alignment with new requirements introduced by the U.S. Environmental Protection Agency (EPA), for 2006 and later model year motorcycles, including: more stringent emission limits for smog-forming emissions compared to previously regulated levels; and expanding the scope to cover small motorcycles (e.g. scooters and mopeds) having an engine displacement of less than 50 cubic centimetres;
        - The proposed *Marine Spark-Ignition Engine and Off-road Recreational Vehicle Emission Regulations* (published in *Canada Gazette,* Part I, on December 30, 2006 for public consultation). Publication of final regulations in *Canada Gazette,* Part II, is anticipated for fall of 2007; and
        - Amendments to the *Off-Road Compression-Ignition Engine Emission Regulations*. Development of the proposed amendments is on-going with an anticipated publication in the *Canada Gazette,* Part I, in fall of 2007.

c. Developing and implementing a comprehensive agenda, in conjunction with Health Canada, for the sound management of chemicals following the completion of the categorization mandate under *Canadian Environmental Protection Act* (CEPA) *1999:*

- On December 8, 2006, the government unveiled Canada's Chemicals Management Plan, which takes immediate action to regulate chemicals that are harmful to human health or the environment, was unveiled. The plan makes Canada a world leader in assessing and regulating chemicals that are used in thousands of industrial and consumer products. It includes realistic and enforceable measures which will improve our environment and protect the health and safety of Canadians;
- Canada became the first country to categorize its entire inventory of "chemicals in commerce" (23,000 chemicals - completed in September 2006), which, until now, had not undergone scientific assessment. The result has been: decisive actions on "chemicals in commerce" have been taken; the establishment of clear priorities concerning these chemicals; and the creation of a new Chemicals website.[17]
- As a result of the Chemical Management Plan announcement, a series of initiatives began in December 2006, one of which challenges stakeholders to provide the government with information on approximately 200 chemical substances that were identified as high priorities for action. Information regarding their current presence or use will be assessed, to: determine further actions required to protect Canadians' health and environment; improve knowledge; and identify best practices. The challenge program began with the publication in the Canada Gazette of the first list of 15 priority substances on February 3, 2007 and will continue on a quarterly basis over the next three years.

d. Strategically managing and ensuring the effectiveness of existing and forthcoming environmental protection regulations and the federal contaminated sites program:

- Environment Canada co-leads with the Treasury Board Secretariat; provides the expertise to departments on ecological risk assessments; and provides secretariat services for the $3.5 billion Federal Contaminated Sites Action Plan (FCSAP) program. The FCSAP provides funding to 15 federal departments, agencies and to consolidated crown corporations for addressing the problem of contamination of federal lands from historical activities. In 2006-2007, the second year of implementation of the program, $376 million was approved for assessment and remediation of more than 2,500 sites across the country, bringing the total amount that has been approved to $565 million (as of April 2006, 1,371 sites have been assessed and 45 sites have been cleaned up). The FCSAP program will be evaluated in 2007-2008.

e. Developing regulations for effluent from wastewater systems (municipal and wastewater systems on Aboriginal land and federal land):

[17] Chemical Substances: http://www.chemicalsubstances.gc.ca

- Working with provinces and territories, through the Canadian Council of Ministers of Environment (CCME), the Department is on-track to develop a Canada-wide Strategy for the management of municipal wastewater effluents. It is hoped that this approach will lead to a collectively agreed-to risk management framework for the wastewater sector and the subsequent development of a wastewater effluent regulation under the *Fisheries Act* (a key element of the CCME Strategy to institute performance measurement and governance).

f. Improving information and reporting on pollution:

- The National Pollutant Release Inventory (NPRI), which provides information on pollutant releases and transfers, continues to be expanded, thus making data available to Canadians and for decision-making purposes. The quality of data in the NPRI, and in the Comprehensive Emission Inventories for Air Pollutants, Heavy Metals and Persistent Organic Pollutants, continues to be improved through collaboration with industry and governmental experts.

g. Approval of a stewardship policy governance structure for biotechnology; and developing and implementing a strategy to identify and address risks from nanotechnology:

- Environment Canada and Health Canada continued to work with other federal departments to develop a stewardship policy / governance structure for products of biotechnology and emerging technologies, including nano-materials. These frameworks will result in the appropriate management of new products of biotechnologies and emerging technologies by the most suitable department, and under the proper federal legislation.

2. *Implementation of key strategic shifts to improve the effectiveness of program approaches including:*

a. Using sectoral approaches for risk assessment and risk management, where possible:

- Environment Canada has made a commitment to work with specific industry sectors to achieve reductions in pollutant emissions and to forge stronger relationships with sectoral stakeholders. As part of this commitment, Environment Canada reorganized the Environmental Stewardship Branch to more effectively address risk management for all pollutants across media (e.g. air, water, soil) as well as within a particular sector.

b. Using equivalency agreements and other federal, provincial or territorial partnership approaches to achieve national targets:

- Approval through the Canadian Council of Ministers of Environment (CCME) of a Canada-wide Standard (CWS) for Mercury Emissions from Coal-fired Electric Power Generation Plants (by 2010 - 45% reduction of mercury emissions from existing plants, relative to 2003 emissions);

- Future consideration for the development of agreements in the domain of air emission regulation for the electricity sector;
- Establishment of a leadership role in the development of strategies to review and determine Air Quality Objectives;
- A four-year joint science assessment of trans-boundary particulate matter, published in 2004, concluded that further reductions in trans-boundary air pollution, including particulate matter, would help Canada and the U.S. achieve their respective air quality and acid rain goals. Based on this research, Canada and the U.S. announced, in April 2007, their intention to pursue the negotiation of an annex to the Canada-U.S. Air Quality Agreement which would address particulate matter and other issues of concern (such as acid rain and visibility in the Canada-U.S. border region); and
- Canada, the U.S. and Mexico are working collaboratively, through the Commission for Environmental Cooperation, to develop efficient and effective North American-wide strategies to preserve and improve the quality of our shared air sheds. Initial work aimed at enhancing North American Air Quality Management will result in the development of comparable and synchronized emissions inventories and monitoring systems. Data and analyses from these systems, as well as data, information and knowledge, from our other shared program (such as Border 2012), will inform our strategies and initiatives for our air quality and emissions work in 2010-2015.

c. Effective use of public education and engagement, including risk communication:

- National coordination of Clean Air Day;
- Coordination of the Clean Air Online (CAOL) website;
- Development of an Environment Canada Clean Air Outreach Strategy;
- Development and implementation of Community-based clean air outreach activities including:
    - Support for municipal and community activities (e.g. Car-Free day, Toronto Smog Summit);
    - Coordination of communications and outreach activities under the Border Air Quality Strategy;

- Contribution Agreements to seven programs operated by local grassroots organizations across Canada. An example would include the voluntary accelerated on-road vehicle program (also known as the vehicle scrappage program), which is designed to improve air quality by permanently removing older, high-emitting vehicles from the roads. In 2006-2007, more than 3,700 vehicles were scrapped by their owners in exchange for an incentive such as: a transit pass, a rebate toward the purchase of a new or newer vehicle or a rebate toward the purchase of a new bicycle; and
- Dissemination of information to educate industry on environmental issues related to industrial combustion and benefits of cogeneration and variety of outreach activities to educate the public and aboriginal communities regarding the effective use of residential wood burning appliances.

3. *Establishing a clear and predictable environmental protection regime by developing and implementing a quality management system for decision-making with respect to pollutants.*

a. By developing and implementing a Quality Management System (QMS) for its regulatory programs, Environment Canada will help ensure that decision-making processes are: clear, integrated, efficient, transparent, implemented consistently, continually assessed, improved, and supported by sound document and information management practices. Environment Canada has adopted a modular approach to QMS by focusing first on the risk assessment and risk management of existing substances under the *Canadian Environmental Protection Act, 1999*. Development of this first module is close to completion and includes the following:

- Process and approvals flowcharts to depict the overall process and the various risk management measures;
- Quality Manual for the risk assessment and risk management program; and
- The development of communication, collaboration, integration, and tracking tools to aid in implementing a QMS while supporting regulatory program activities.

Investment

Program Activities	Financial Resources ($ millions)			Human Resources (FTEs)		
	Planned Spending	Total Authorities	Actual Spending	Planned	Actual	Difference
Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced	238.5	241.8	229.8	1,658	1,544	(114)
Canadians adopt sustainable consumption and production approaches	26.5	31.1	29.7	184	194	+10
Totals	**265.0**	**272.9**	**259.5**	**1,842**	**1,738**	**(104)**

Note: Variations between the actual and planned number of FTEs are principally due to re-alignment of program activities. For an overall outlook on the number of FTEs, please see Table 1 - Comparison of Planned to Actual Spending (including Full-time Equivalents).

Program Activity: Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced

What is the issue?

Toxics and other harmful substances pose considerable threats to the health and well-being of Canadians and have significant negative impacts on air, water and land. Under this program area, environmental and human health threats posed by toxic substances and other substances of concern are understood and communicated in terms of their release rates. Appropriate risk management measures thus prevent, reduce or eliminate their effects. These substances may exert a direct or indirect harmful effect on animals, plants or humans and depending on their volume, nature and manner of release, may pose long-term risks to the environment.

In 2006, as part of the Canadian Environmental Sustainability Indicators (CESI) initiative, air quality indicators were reported upon in combination with National Air Pollutants Surveillance data, to provide information on trends, in population exposure, for two key components of smog and two of the most common and harmful air pollutants - ground-level ozone and fine particulate matter ($PM_{2.5}$) concentrations. Reported findings included the following:

- At the national level, from 1990 to 2004, the population weighted seasonal average ground-level ozone values showed year-to-year variability with an average increase of 0.9% per year;
- In 2004, ground-level ozone values were the highest at monitoring stations in southern Ontario, followed by Quebec and eastern Ontario. Southern Ontario has exhibited an increasing trend in the population weighted, seasonal average value since 1990, while other regions showed no noticeable increase or decrease; and
- The highest levels of $PM_{2.5}$ were found in southern Ontario, although some areas in eastern Quebec also showed high levels. There was no discernible national trend for the population weighted $PM_{2.5}$ during the period 2000 to 2004.

What are we doing about it?

This program activity revolves around reducing risks to the environment and to human health posed by pollutant releases related to human activities. Environmental and human health threats, posed by toxic substances and other substances of concern, are understood in terms of: their fate; their effects; their prevention; their reduction; their elimination; or other management measures. These substances may exert a direct or indirect harmful effect on animals, plants or humans and depending on their volume, nature and manner of release, may pose long-term risks to the environment.

Are we succeeding?

Since the early 1990s, Canada and other industrialized nations have had processes in place to assess health and environmental risks associated with new substances (chemicals, polymers and biotechnology materials) before they are allowed to enter the marketplace. These processes have been backed up by regulatory and other measures to manage inherent risks posed by these new substances.

However, in Canada, as in other industrialized countries, large numbers of substances, which were in use prior to 1990, have been allowed to remain in commercial use, pending their assessment for potential health and /or environmental effects. In Canada, this amounts to some 23,000 substances that were used commercially in the mid-1980s, prior to the promulgation of *Canadian Environmental Protection Act (CEPA) 1999.*

Pursuant to CEPA 1999, the Government was required to undertake a comprehensive review, called "categorization," of these un-assessed substances to identify:

- Those that were inherently toxic to humans or to the environment and that might be persistent (e.g. taking a long time to break down) and/or bio-accumulative (e.g. collect in living organisms and end up in the food chain); and
- Those to which people might have the greatest potential for exposure.

CEPA 1999 requires that substances identified through this process require further evaluation to determine their precise health and environmental risks, and how those risks should best be managed.

As a result of having completed the categorization mandate in the fall of 2006, Canada is the first country in the world to have concluded a comprehensive review of all its substances in commerce. This initial categorization resulted in the identification of approximately 4,300 substances which will require assessments, by Environment Canada and Health Canada scientists, to determine their precise health and environmental risks and how those risks should be managed.

In December 2006, the Government announced that it would invest $300 million in a new Chemicals Management Plan that sets out a process to address the majority of these substances by 2020.

The Chemicals Management Plan consists of four interrelated components:

1. Risk assessment to evaluate whether the substances pose a threat to the environment and human health.
2. Risk management to develop appropriate control strategies and instruments to mitigate or eliminate the risks.
3. Research to generate the science-based information to inform risk assessment and management.
4. Monitoring and surveillance to collect and generate human health and environmental data to better inform decision-making and measure the effectiveness of control actions.

Major programs and initiatives

Expected Result: Air quality is improved	
Activities: Regulatory development and implementation addressing air quality issues such as smog and acid rain	
Key Indicators	**Progress in 2006-2007**
Ambient air quality levels as measured by the National Air Pollution Surveillance Program (NAPS)	In 2006, Environment Canada expanded the monitoring network to 186 air monitoring instruments (an investment of approximately $2.6M) to enhance the capacity to measure ambient levels of particulate matter, ozone (ground-level) and other criteria air contaminants, as well as to replace aging equipment. Currently, 326 monitoring stations are reporting to the NAPS database. While ambient levels of some pollutants like total volatile organic compounds (VOC), fine particulates ($PM_{2.5}$), sulphur dioxide (SO_2), and nitrogen oxides (NO_X) have been steady or decreasing over the years, everyday levels of ozone have been increasing. Studies indicate that even with low ambient concentrations of ozone and $PM_{2.5}$, adverse human health effects can still occur. Consequently, the risk of health effects to the Canadian population from exposure to ozone may have increased, while for $PM_{2.5}$ there may have been no improvements. Because SO_2, NO_X and VOC are precursors of $PM_{2.5}$, and NO_X and VOC are precursors to ozone, actions are needed to further reduce emissions of the precursors in order to reduce the ambient levels of ozone and secondary $PM_{2.5}$.
For further information: Clean Air Online: http://www.ec.gc.ca/cleanair-airpur/Home-WS8C3F7D55-1_En.htm	

National Air Pollution Surveillance Network (NAPS): http://www.etc-cte.ec.gc.ca/NapsStations/Default.aspx

Expected Result: Risks to Canadians and their environment posed by pollutants or other harmful substances are assessed	
Activities: Risk Assessment – categorization exercise of commercial chemicals	
Key Indicators	**Progress in 2006-2007**
Number of categorized commercial chemicals	The categorization exercise was completed as planned in September 2006. Approximately 4,000 substances meet the criteria while an additional 300 have also been identified as priorities.
For further information: Chemicals website: http://www.chemicalsubstanceschimiques.gc.ca/	

Expected Result: Risks to Canadians and their environment posed by pollutants or other harmful or dangerous substances are managed	
Activities: Risk management of toxic substances of concern through various instruments, such as: regulations; pollution prevention planning; environmental emergency planning; environmental codes of practice; and *CEPA* guidelines	
Key Indicators	**Progress in 2006-2007**
Quantity of releases or concentration of substance(s) of concern in the ambient environment	Progress for this indicator include the following: • Together, pollutant inventories—such as the National Pollutant Release Inventory (NPRI) and Criteria Air Contaminant (CAC) Emissions Inventory—and ambient monitoring programs—such as the National Air Pollution Surveillance (NAPS) Network—allow governments and the public to assess progress in reducing pollutant releases and ambient concentrations of substances of concern in the environment. A summary of trends based on NPRI, CAC Inventory and NAPS data is provided below; • Total reported releases of most CEPA Schedule 1 toxic substances decreased between 2000 and 2005—the latest year for which reviewed NPRI data are available. Examples of such decreases for this time period include Benzene (-47%); Dioxins and Furans (-30%); and Mercury (-16%); • However, total reported releases of some CEPA Schedule 1 substances have increased. These include formaldehyde (+15%); and Amonia (+39%); • Emissions of criteria air contaminants (CACs)*—key pollutants contributing to acid rain, smog and/or poor air quality—decreased between 1995-2005. Examples include total particulate matter (-22%); sulphur oxides (-21%); volatile organic compounds (-17%); and nitrogen oxides (-4%); • However, total particulate matter (TPM), volatile organic compounds (VOCs) and ammonia emissions are projected to increase in the future. Moreover, while CAC emissions in Ontario have decreased in recent years, emissions in Alberta have increased, principally due to expanding oil and gas and oilsands production.
Number of preventative or control measures (e.g. regulations or voluntary instruments) in place which address substances of concern	**Regulations** Publication in *Canada Gazette*, Part I, of the following: • Proposed amendments to *Prohibition of Certain Toxic Substances Regulations, 2005* to add four new fluorotelomer-based substances (Perfluorinated Carboxylic Acids (PFCAs) precursors); • Proposed *Perfluorooctane sulfonate and its Salts and Certain Other Compounds Regulations* (PFOS); • Proposed *Polybrominated Diphenyl ethers Regulations* (PBDEs); • Proposed *Polychlorinated biphenyls Regulations* (PCBs); • *Interprovincial Movement of Hazardous Waste and Hazardous Recyclable materials*

	Regulations; • Proposed amendments to the *Ozone-Depleting Substances (ODS)Regulations, 1998*; and • Proposed amendments to the *Metal Mining Effluent Regulations*. Publication in *Canada Gazette*, Part II, of the following: • Regulations amending the *Prohibition of Certain Toxic Substances Regulations, 2005* (to add 2-Methoxyethanol, Pentachlorobenzene and Tetrachlorobenzene); • Amendments to the *Metal Mining Effluent Regulations; and* • Amendments to the *2-Butoxyethanol Regulations* **Environmental Performance Agreements** Published Environmental Performance Agreements on refractory ceramic fibres, paints and coatings and locomotive emissions. Initiated consultation on Environmental Performance Agreement to reduce polycyclic aromatic hydrocarbons (PAHs) from aluminium smelting. Published a proposed Environmental Performance Agreement on the use of tin stabilizers in the vinyl industry. **Pollution Prevention Plans** Published a proposed Pollution Prevention Planning Notice for Mercury Switches in End of Life Vehicles Processed by Steel Mills, and a Final Notice for specific substances released from Base Metal Smelters, Refineries and Zinc Plants. In 2006, the New Substances Program (NSP) received and assessed notifications on new chemicals, polymers, products of biotechnology and substances contained in products controlled under the *Food and Drugs Act*. During the year, the NSP received approximately 400 notifications for chemicals, polymers and products of biotech and approximately 40 notifications for substances contained in products controlled under the *Food and Drugs Act*. Three conditions and eight Significant New Activity notices for new substances suspected of being toxic under CEPA 1999 were published in *Canada Gazette*, Part I.
For further information: CEPA Environmental Registry: http://www.ec.gc.ca/ceparegistry/ National Pollutant Release Inventory (NPRI): http://www.ec.gc.ca/npri-inrp-comm/ Criteria Air Contaminants Emissions Inventory (CAC) : http://www.ec.gc.ca/pdb/cac/	

*Compiled in Canada's Criteria Air Contaminant Inventory, excluding open sources such as forest fires and road dust.

Program Activity: Canadians adopt sustainable consumption and production approaches

What is the issue?

The generation, collection and reporting of environmental and pollution information is crucial for educating Canadians about the connection between their actions and environmental, health and economic outcomes. It is also essential for encouraging them to adopt sustainable consumption and production approaches; for supporting risk assessment and risk management activities; for assessing progress; and for enabling key decision-makers, including investors,

consumers and companies to make quality decisions in support of Canada's long-term competitiveness and the health of our citizens and our environment.

Providing publicly accessible information on chemical substances and their associated risks is a means through which the department can promote the use of environmental information in market based decisions. Advancing more sustainable consumption and production is fundamental in developing a sustainable economy. The central challenge in this endeavour is to incorporate environmental and social aspects into decision-making previously dominated by economic considerations.

What are we doing about it?

This program activity provides a focus for the Department's longer term efforts to reduce the cost of unsustainable consumption patterns and to shift industry towards more sustainable forms of production. Another key component of this activity is the provision, to Canadians and decision-makers, of high-quality and timely information on pollutant "releases" through user-friendly tools and products. Underlying this is the creation of a clear and predictable environmental protection regime, designed to encourage and enable sustainable production and consumption.

Are we succeeding?

The *Canadian Environmental Protection Act, 1999* (CEPA 1999) and its administration must be reviewed by Parliament every five years. This parliamentary review provides the Government of Canada with an opportunity to assess the contribution of CEPA 1999 to the goals of: pollution prevention; sustainable development; and federal, provincial, territorial and Aboriginal cooperation. The parliamentary review also provides an opportunity for Canadians to provide feedback on how well they feel the Act is protecting their environment and health. The CEPA 1999 review was launched in May 2006 by two Parliamentary Committees, one in the House of Commons and the other in the Senate. The House of Commons review by the Standing Committee on Environment and Sustainable Development has heard from over 30 organizations including environmental groups, industry representatives and academics. The House Standing Committee tabled its report in May 2007. The Senate Standing Committee on Energy, Environment and Natural Resources is still pursuing its review which should be completed in fall of 2007.

Information on pollutant releases and transfers, available for Canadians and decision-makers, continues to be improved through expansion of the National Pollutant Release Inventory (NPRI). Data in the NPRI and in the Comprehensive Emission Inventories for Air Pollutants, Heavy Metals and Persistent Organic Pollutants (POPs) continues to be enhanced through engagement and collaboration with industry and governmental experts.

Major programs and initiatives

Expected Result: Canadians are informed of environmental pollution and are engaged in measures to address it	
Activities: Data collection, inventory compilation, quality improvement, and public reporting.	
Key Indicators	**Progress in 2006-2007**
Quantity and quality of information	Progress for this indicator include the following:

reported to and contained in the National Pollutant Release Inventory (NPRI) and the Criteria Air Contaminant (CAC) Emissions Inventory	• During 2006-2007, the NPRI collected and made publicly available information from 8,400 industrial facilities on their 2005 releases, disposals and recycling of 341 pollutants. For 2005 reporting, 18 substances were added and the mining exemption was removed. The requirements for 2006 reporting, including additional requirements for reporting of: dioxins, furans, polycyclic aromatic hydrocarbons, and total reduced sulphur were published. 2006 Reporting changed with the removal of the exemptions for road dust, pits and quarries; • The Criteria Air Contaminant (CAC) Comprehensive Emissions Inventory, including emission trends and projections (1990-2015) was compiled and published. Reporting obligations under various Protocols to the UNECE LRTAP Convention were met through submission of Canada's country report on 2005 emissions of air pollutants, heavy metals and POPs; and • NPRI and the CAC Inventories have initiated an intensive data quality improvement program for air pollutants and other key substances of concern. The approach involves collaborating with key industrial sectors to develop better guidance and tools for reporting facilities, to standardize reporting protocols, and to better characterize emissions of priority pollutants from key industrial processes. Efforts to improve data quality, by simplifying reporting requirements, incorporating guidance and quality control checks in reporting software, and improving quality control activities after data is submitted, continued in 2006-2007.
For further information: National Pollutant Release Inventory: http://www.ec.gc.ca/npri-inrp-comm/ Criteria Air Contaminants: http://www.ec.gc.ca/pdb/cac/	

Expected Result: Sector-based and other approaches promote sustainable consumption and production	
Activities: Strategic analyses, policy approaches for promoting sustainable consumption and production practices	
Key Indicators	**Progress in 2006-2007**
Strategic approach and policy options for sustainable production and consumption are developed	A strategic approach to sustainable consumption and production was developed in order to focus and coordinate departmental efforts and to facilitate interdepartmental collaboration. Priority areas identified for action include green procurement, corporate environmental innovation (with an initial focus on the financial sector), analysis and risk management of products with harmful effects or ingredients, and greening supply chains (with a focus on small and medium-sized enterprises).

Strategic Outcome 4: The impacts of climate change on Canada are reduced

OVERVIEW:

What is the issue?

In order to reduce the social, economic and environmental impacts of climate change on Canada, action needs to be taken on two fronts: first, by reducing greenhouse gas (GHG) emissions; and second, by strengthening the understanding of the impacts of climate change, and taking steps to adapt to its effects.

Established by the World Meteorological Organization and the United Nations Environment Programme, the Intergovernmental Panel on Climate Change (IPCC) indicates that the emission of GHGs into the atmosphere is causing the climate to behave in increasingly unnatural and

unpredictable cycles. In order to address this issue, global actions are required to reduce GHG emissions.

What are we doing about it?

In April 2007, the Government released *Turning the Corner*, which takes an integrated approach to reducing greenhouse gas emissions and air pollutants. *Turning the Corner* includes the Regulatory Framework for Air Emissions, which establishes short, medium and long term reduction targets for industrial and other emission and pollution sources that will benefit both the health of Canadians and Canada's environment.

The real reductions in emissions that will be driven by the Government's new regulations, coupled with the impacts of both the non-regulatory actions and ambitious new initiatives being taken by provincial and territorial governments, mean that Canada's greenhouse gas emissions from all sources are expected to begin to decline as early as 2010 and no later than 2012. Thereafter, absolute emissions will continue to decline. The Government is committed to reducing Canada's total emissions of greenhouse gases by 20% by 2020 and by 60% to 70% by 2050.

On behalf of the federal government, Environment Canada is engaging large emitters from developed and developing countries to participate in the United Nations (UN) climate change process. By engaging internal and external members of the UN, the objective is to achieve a long-term agreement for post 2012, when the Kyoto Protocol's emissions targets expire, to limit the emission of GHGs that are contributing to climate changes. Environment Canada is actively participating in all areas where the nature of a long-term framework is being discussed, and the Department is working to develop an agreement that is environmentally effective and is reflective of Canada's national circumstances.

Are we succeeding?

On the domestic front, a Notice of Intent to regulate air emissions was published in the *Canada Gazette*, Part I, in October 2006. Following its publication, consultations were held with provinces and key stakeholders on elements that would make up the regulatory framework for air emissions. The *Regulatory Framework for Air Emissions*, released in April 2007, includes measures to reduce GHGs and air pollutants from industrial, transportation, consumer, and commercial sources. The reductions in emissions that are expected to result from the Regulatory Framework will have an important positive impact on Canada's environment and on the health of Canadians.

Canada's domestic approach will also demonstrate its commitment to acting on climate change to the international community. Canada has been working as a part of multilateral efforts to ensure effective international cooperation on climate change. These included discussions with G8 partners to seek consensus on a post-Kyoto approach in reducing GHGs. Future international cooperation that meets Canada's goals would result in significant reductions in global GHG emissions from major emitting countries; the maintenance of the competitiveness of Canadian enterprises; and the generation of significant environmental co-benefits.

Canada is an active participant within the United Nations Framework Convention on Climate Change and the Kyoto Protocol. In addition to the UN process, the Department is also participating in discussions such as the G8 and Gleneagles Dialogue. Through these engagements, the Government of Canada is assisting countries to arrive at a set of common principles for the development of a more effective global agreement.

Progress Against Priorities

The following is a summary of Environment Canada's progress against priorities established in the *2006-2007 Report on Plans and Priorities*:

- The sources of GHG emissions and common air pollutants, as well as the action required to reduce them, are often the same. Efficient strategies should be pursued that address both clean air and climate change in an integrated manner; and
- Canada intends to work with its international partners to reduce global greenhouse gas emissions. Canada is prepared to work within all multilateral efforts to ensure effective international cooperation on climate change.

The Regulatory Framework for Industrial Air Emissions provides a strong motivation for regulated industries to take into account the cost of air emissions as a part of business decisions. In addition, the Government recognizes that technology will play an important role in reducing GHGs. As a part of the Regulatory Framework, a climate change technology fund will spur investments in the technologies that are required to make deep and long-term reductions in GHGs. Moreover, the emissions trading system being put in place will reward companies that take action to reduce GHG emissions beyond the regulated targets.

Canada has been working as a part of multilateral efforts to ensure effective international cooperation on climate change. This includes discussions with the G8 members to seek consensus on a post-Kyoto approach to reducing GHGs. Canada is seeking an international approach to climate change that includes all major emitters and that is in-line with Canada's long-term goals for reducing GHG emissions.

The regulatory framework for air emissions includes a coordinated approach to reducing both GHGs and air pollutants. As GHGs and air pollutants share many common sources, the coordination of reduction requirements will permit regulated industry to take a synergistic approach in reducing their emissions.

The Government is committed to reducing Canada's total emissions of greenhouse gases by 20% by 2020 and by 60% to 70% by 2050.

Investment

Program Activities	Financial Resources ($ millions)			Human Resources (FTEs)		
	Planned Spending	Total Authorities	Actual Spending	Planned	Actual	Difference
Net emissions of greenhouse gases are reduced	32.6	25.0	24.4	194	187	(7)
Canadians understand the impacts of climate change and adapt to its effects	1.9	3.9	4.8	8	63	+55
Totals	**34.5**	**28.9**	**29.2**	**202**	**250**	**+48**

Note: Variations between the actual and planned number of FTEs are principally due to re-alignment of program activities. For an overall outlook on the number of FTEs, please see Table 1 - Comparison of Planned to Actual Spending (including Full-time Equivalents).

Program Activity: Net emissions of greenhouse gases are reduced

What is the issue?

In order to combat climate change, as well as demonstrate leadership internationally, and drive research and innovation in low-emission technology, Canada must act to reduce its domestic greenhouse gases.

The status of greenhouse gas emissions in Canada was reported by Environment Canada in the 2006 Canadian Environmental Sustainability Indicators report and the greenhouse gas inventory prepared for the United Nations Framework Convention on Climate Change (UNFCCC). The reports indicated that in 2005, Canada's greenhouse gas emissions reached an estimated 747 mega-tonnes of carbon dioxide equivalent, up 25.3% from 1990. According to these results, Canada had already exceeded its Kyoto Protocol targeted emissions level[18] This shows that Canada's 2005 emissions were 32.7% above the Kyoto Protocol target of a 6% reduction from 1990 by 2008-2012.

What are we doing about it?

The Government is committed to reducing Canada's greenhouse gas emissions in order to combat the effects of climate change. The Government has developed *Turning the Corner*, a plan that balances the need to reduce greenhouse gas emissions and support sustainable economic growth. It employs mandatory regulations to ensure reductions in greenhouse gas emissions and uses market-based approaches to ensure that these reductions are achieved at a reasonable cost. The Plan also promotes innovation by stimulating the development and deployment of clean energy and clean transportation technologies. Along with this, the Government has invested in a series of ecoACTION program measures that will also help reduce Canada's GHG emissions.

The Government is committed to taking effective and realistic action that will ensure a long term absolute reduction in Canada's GHG emissions without negatively impacting the economy could be manageable over a reasonable period of time, with an appropriate range of regulatory and

[18] 2008 to 2012 Kyoto Protocol targeted emissions level = 6% reduction from 1990 baseline

market-based instruments to provide Canadian firms and individuals with the right incentives. Under such an approach, and given a longer timeframe, firms and individuals could adopt currently available technologies that emit fewer greenhouse gas emissions, as well as implement new technologies with limited costs as existing facilities and equipment wear out and are replaced.

The measures to be implemented to address greenhouse gas emissions will be closely aligned and coordinated with action to reduce air pollutants, as described in the previous section under the Program Activity "Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced" and in the Regulatory Framework for Air Emissions. The sources of GHG emissions and common air pollutants, as well as the actions required to reduce them, are often the same. Efficient strategies are being pursued that address both clean air and climate change in an integrated manner.

Canada intends to work with its international partners to reduce global greenhouse gas emissions and is prepared to use all multilateral efforts to ensure effective international cooperation on climate change. Key factors within the global effort to reduce greenhouse gas emissions include the scale and timing of global emission reductions through to 2050 and perhaps beyond, the use of the most up-to-date science, and an understanding of the impacts of climate change. Any future international agreement must also include all major emitters.

Canada has evolved its approach, to addressing climate change, continuously since the signing of the UNFCCC in 1992. However, a number of areas require more focus to achieve long term, realistic and effective reductions in GHG emissions. This will include: reducing air pollutant and GHG emissions from industrial and transportation sectors; supporting the development of new technologies needed to address air quality and climate change for the long term; improving energy efficiency and increasing the use of renewable energy; helping citizens and communities take action; and working through the United Nations process and other multilateral approaches, to reduce greenhouse gas emissions.

Are we succeeding?

Canada is a constructive participant in the long-term climate change dialogue under the United Nations Framework Convention on Climate Change (UNFCCC). As well as participating actively in other complimentary forums which are involved in climate change, Canada is working to form an effective long-term agreement, which engages all large emitters, while taking national circumstances into consideration.

The Government has set out an ambitious yet realistic target for the reduction of both GHGs and air pollutants. The Government's new regulations, coupled with non-regulatory actions and initiatives from Canada's provinces and territories will help the Government achieve its commitment to reducing Canada's total emissions of greenhouse gases by 20% by 2020 and by 60% to 70% by 2050.

Major programs and initiatives

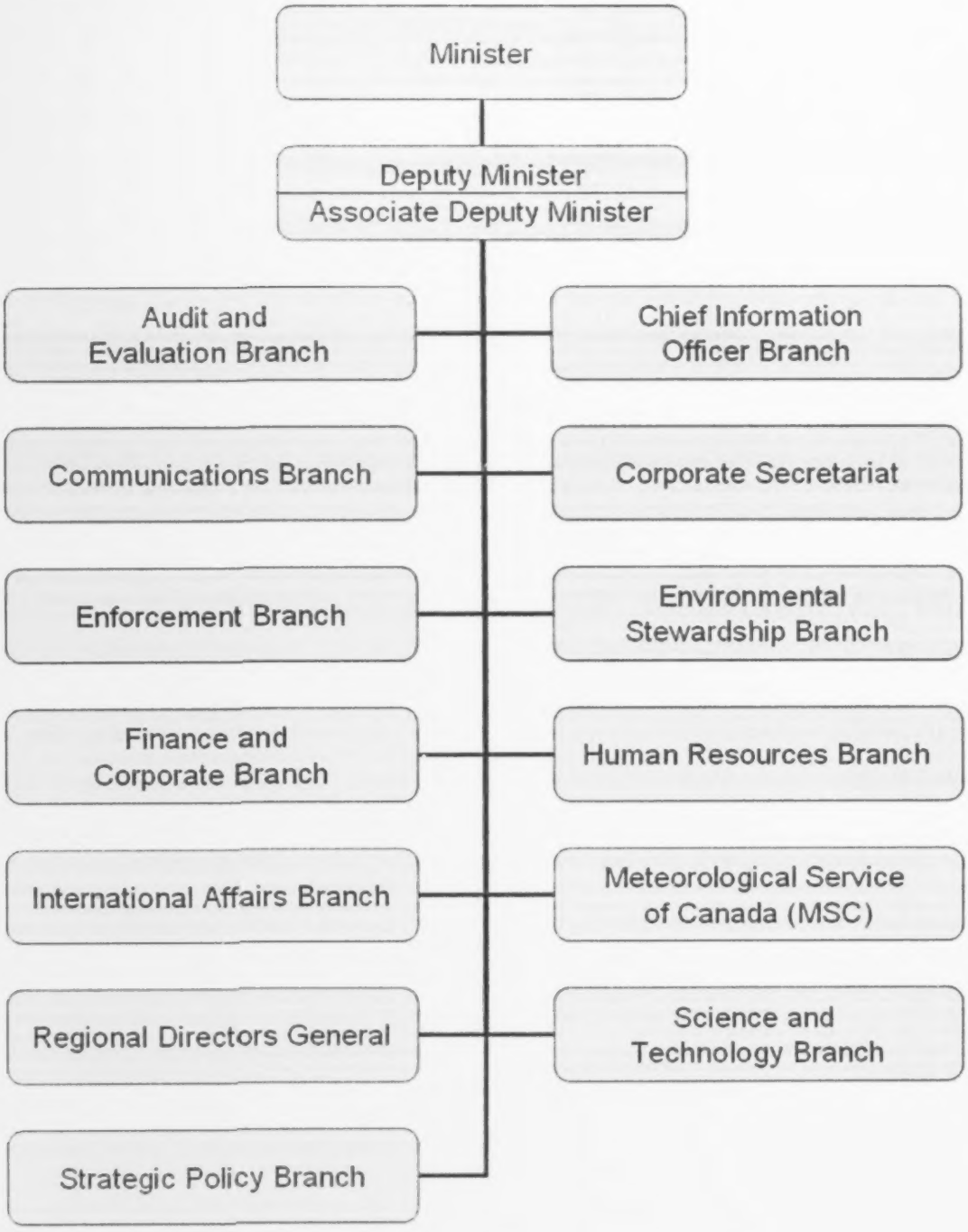
Expected Result: The climate change plan is implemented	
Activities: Policy and framework development; strategic analyses; and consultations with industry, NGO's and other levels of government	
Key Indicators	**Progress in 2006-2007**
Emissions from large industries are reduced	A regulatory framework was announced in spring of 2007 that will lead to significant reductions from large industries starting in 2010.
Emissions trading infrastructure is developed	As part of the regulatory framework, an emissions trading system is under development. Consultations were held with key stakeholders in the spring and summer of 2007.
Increased integration with Clean Air objectives	The regulatory framework requires reductions of both greenhouse gases and air pollutants. The regulations will be coordinated so that firms can maximize synergies in reducing air emissions from common sources.
Public education and awareness of consumer options increased	National coordination of Clean Air Day Coordination of the Clean Air Online (CAOL) website[19] Development of an Environment Canada Clean Air Outreach Strategy: Development and implementation of Community-based clean air outreach activities including: • Support for municipal and communities action (e.g. Car-Free day, Toronto Smog Summit); and • Coordination of Communications and outreach activities under the Border Air Quality Strategy.
For further information: Clean Air Online: http://www.ec.gc.ca/cleanair-airpur/Home-WS8C3F7D55-1_En.htm	

Expected Result: The long-term global climate change regime is consistent with Canadian interests	
Activities: • Advance Canada's interests by participating in negotiating sessions within the United Nations Framework Convention on Climate Change (UNFCCC) process; • Promote Canada's climate change interests internationally in bilateral and multilateral fora outside of the UNFCCC Process; and • Participate as a full member of the Asia-Pacific Partnership in the development of projects that promote the development, deployment and diffusion of existing and emerging cleaner, more efficient technologies and that reduce Greenhouse Gas emissions.	
Key Indicators	**Progress in 2006-2007**
Progress achieved at UN meetings towards the approach to global action on climate change reflects Canadian position and national situation	Canada participated actively both inside and outside the United Nation, and advanced the principles that the next generation long-term climate change agreement for the post-2012 period needs to include all major emitters and consider national circumstances in the determination of future commitments.
For further information: http://www.ec.gc.ca/default.asp?lang=En&n=6EE576BE-1	

[19] Environment Canada, Clean Air Online: http://www.ec.gc.ca/cleanair-airpur/Home-WS8C3F7D55-1_En.htm

SECTION III: SUPPLEMENTARY INFORMATION

Organizational Information



Financial Performance Overview

This section contains a summary of Environment Canada's financial performance for the fiscal year 2006-2007.

The financial statements have been prepared in accordance with Treasury Board accounting policies which are consistent with Canadian generally accepted accounting principles for the public sector.

The Department receives most of its funding through annual Parliamentary appropriations. Items recognized in the statement of operations and the statement of financial position in one year may be funded through Parliamentary appropriations in prior, current or future years. Accordingly, the Department has different net results of operations for the year on a government funding basis than on an accrual accounting basis.

The Department spent $868.4 million in 2006-2007. This amount is only marginally larger than the planned spending identified in our *2006-2007 Report on Plans and Priorities.*
The 2006-2007 fiscal year continued the transition for the Department and continued with a major reorganization exercise.

The Canada Emission Reduction Incentives Agency (CERIA) did not incur any of its planned spending for fiscal year 2006-2007, as outlined in Environment Canada's *2006-2007 Report on Plans and Priorities.* The funds, approved in principle by Treasury Board, were frozen and required further detailed descriptions of activities prior to their release. The programs under this Agency were cancelled in 2006-2007.

Summary financial data, such as the information presented in Table 1, are displayed using four separate headings. For clarity, these headings are defined as:

- Main Estimates - Amounts shown in the 2006-2007 *Main Estimates*;
- Planned Spending - Amounts shown in the 2006-2007 *Report on Plans and Priorities*;
- Total Authorities - Planned spending plus any additional amounts Parliament has approved for departments to reflect changing priorities and unforeseen events; and
- 2006-2007 Actual Spending - The amounts actually spent for the fiscal year.

Note: Some totals may differ from one table to another due to the rounding of the figures.

Table 1: Comparison of Planned to Actual Spending (including Full-time Equivalents)

This table offers a comparison of the Main Estimates, Planned Spending, Total Authorities, and Actual Spending for the most recently completed fiscal year, as well as historical figures for Actual Spending.

	2004-2005	2005-2006	2006-2007			
($ millions)	Actual Spending (1)	Actual Spending (1)	Main Estimates	Planned Spending	Total Authorities	Actual Spending
Biodiversity is conserved and protected	126.2	130.5	125.3	125.6	136.0	143.5
Water is clean, safe and secure	51.7	60.1	54.9	59.7	86.2	95.7
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	76.7	79.4	71.8	80.9	76.7	59.6
Improved knowledge and information on weather and environmental conditions influences decision-making	123.1	130.8	117.6	121.8	136.4	138.9
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	148.4	174.9	151.6	151.0	151.3	142.1
Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced	219.3	344.2	236.3	238.5	241.8	229.8
Canadians adopt sustainable consumption and production approaches	24.5	44.1	26.6	26.5	31.1	29.7
Net emissions of greenhouse gases are reduced	155.4	76.5	18.5	32.6	25.0	24.4
Canadians understand the impacts of climate change and adapt to its effects	1.3	1.2	1.3	1.9	3.9	4.8
Total	**926.7**	**1,041.5**	**803.9**	**838.4**	**888.3**	**868.4**
Less: Non-respendable revenue	(9.0)	(10.7)	N/A	(12.1)	N/A	(11.8)
Plus: Cost of services received without charge (2)	72.2	75.5	N/A	71.7	N/A	81.3
2006-2007 Net Cost of Department	**989.9**	**1,106.3**	**N/A**	**898.0**	**N/A**	**938.0**
Full Time Equivalents	**6,086**	**6,463**	**N/A**	**6,363**	**N/A**	**6,646**

Totals may differ between and within tables due to rounding of figures.

Note: Excludes respendable revenues

(1) Due to the change in reporting structure, the amounts by Program Activity were calculated based on our departmental crosswalk. Refer to Environment Canada's previous Departmental Performance Reports for detailed financial information.

(2) Services received without charge include accommodation provided by PWGSC, the employer's share of employees' insurance premiums, and expenditures paid by TBS (excluding revolving funds), Worker's Compensation coverage provided by Human Resources and Social Development Canada, and services received from the Department of Justice Canada (see Table 4).

Changes between 2005-2006 Actual Spending and 2006-2007 Actual Spending

The actual spending for the Department was $1,041.5 million in 2005-2006 and $868.4 million in 2006-2007, which represents a decrease of $173.1 million. This decrease is mainly attributable to the one-time $150 million grant provided in 2005-2006 to the Federation of Canadian Municipalities for the Green Municipal Fund.

Table 2: Resources by Program Activity

This table presents Main Estimates, Planned Spending, Total Authorities, and Actual Spending by Program Activity and by Vote.

2006-2007						
	Budgetary					
Program Activity	Operating (1)	Capital	Grants	Total: Gross Budgetary Expenditures	Less: Respendable Revenue	Total: Net Budgetary Expenditures
Biodiversity is conserved and protected						
Main Estimates	102.0	0.5	24.0	126.5	(1.2)	125.3
Planned Spending	102.3	0.5	24.0	126.8	(1.2)	125.6
Total Authorities	112.2	1.8	23.2	137.2	(1.2)	136.0
Actual Spending	120.7	1.6	21.9	144.2	(0.7)	143.5
Water is clean, safe and secure						
Main Estimates	55.3	2.3	0.5	58.0	(3.1)	54.9
Planned Spending	60.0	2.3	0.5	62.8	(3.1)	59.7
Total Authorities	83.6	5.0	0.8	89.4	(3.1)	86.2
Actual Spending	93.0	4.7	0.8	98.4	(2.7)	95.7
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes						
Main Estimates	68.4	0.7	4.5	73.5	(1.7)	71.8
Planned Spending	77.4	0.7	4.5	82.6	(1.7)	80.9
Total Authorities	70.2	0.7	7.5	78.4	(1.7)	76.7
Actual Spending	51.9	0.3	7.5	59.7	(0.1)	59.6
Improved knowledge and information on weather and environmental conditions influences decision-making						
Main Estimates	113.4	12.5	0.3	126.1	(8.5)	117.6
Planned Spending	117.6	12.5	0.3	130.3	(8.5)	121.8
Total Authorities	131.6	12.8	0.6	144.9	(8.5)	136.4
Actual Spending	142.6	11.5	0.5	154.7	(15.8)	138.9
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions						
Main Estimates	189.7	7.2	7.5	204.4	(52.9)	151.6
Planned Spending	189.2	7.2	7.5	203.9	(52.9)	151.0

Total Authorities	190.4	7.5	6.2	204.1	(52.9)	151.3
Actual Spending	169.2	7.2	6.2	182.6	(40.5)	142.1
Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced						
Main Estimates	226.8	6.2	10.4	243.4	(7.1)	236.3
Planned Spending	229.0	6.2	10.4	245.6	(7.1)	238.5
Total Authorities	233.4	8.1	7.4	248.9	(7.1)	241.8
Actual Spending	219.8	7.9	6.9	234.7	(4.8)	229.8
Canadians adopt sustainable consumption and production approaches						
Main Estimates	23.3	3.3	-	26.7	(0.0)	26.6
Planned Spending	23.3	3.3	-	26.6	(0.0)	26.5
Total Authorities	24.2	3.3	3.6	31.2	(0.0)	31.1
Actual Spending	24.9	1.2	3.6	29.7	(0.0)	29.7
Net emissions of greenhouse gases are reduced						
Main Estimates	18.1	0.4	-	18.5	(0.1)	18.5
Planned Spending	32.3	0.4		32.6	(0.1)	32.6
Total Authorities	24.2	0.5	0.3	25.1	(0.1)	25.0
Actual Spending	23.8	0.3	0.3	24.4	(0.0)	24.4
Canadians understand the impacts of climate change and adapt to its effects						
Main Estimates	1.3	-	-	1.3	(0.0)	1.3
Planned Spending	1.9	-	-	1.9	(0.0)	1.9
Total Authorities	3.4	0.4	0.1	3.9	(0.0)	3.9
Actual Spending	4.7	0.1	0.1	4.9	(0.1)	4.8
Total						
Main Estimates	798.5	33.0	47.1	878.5	(74.7)	803.9
Planned Spending	833.0	33.0	47.1	913.1	(74.7)	838.4
Total Authorities	873.3	40.0	49.7	963.0	(74.7)	888.3
Actual Spending	850.6	34.8	47.9	933.3	(64.8)	868.4

Totals may differ between and within tables due to rounding of figures.

(1) Operating includes salaries, contributions to employee benefit plans, the Minister's salary and car allowance, and the proceeds from the disposal of surplus Crown assets.

Table 3: Voted and Statutory Items

This table explains the way Parliament votes resources to the Department.

Vote or Statutory Item	Truncated Vote or Statutory Wording	2006-2007 ($ millions)			
		Main Estimates	Planned Spending	Total Authorities	Actual Spending
1	Operating expenditures	648.2	682.6	716.2	703.7
5	Capital expenditures	33.0	33.0	40.0	34.8
10	Grants and contributions	47.1	47.1	49.7	47.9
(S)	Minister of the Environment – Salary and motor car allowance	0.1	0.1	0.1	0.1
(S)	Contributions to employee benefit plans	75.5	75.6	81.3	81.3
(S)	Spending of proceeds from the disposal of surplus Crown assets	-	-	1.0	0.7
	Total Department	**803.9**	**838.4**	**888.3**	**868.4**

Totals may differ between and within tables due to rounding of figures
Note: Excludes respendable revenues

Table 4: Services Received Without Charge

This table is designed to show the services received without charge by the Department.

($ millions)	2006-2007
Accommodation provided by Public Works and Government Services Canada (PWGSC)	37.5
Contributions covering employers' share of employees' insurance premiums and expenditures paid by TBS (excluding revolving funds)	38.3
Workers' Compensation coverage provided by Human Resources and Social Development Canada	1.3
Salary and associated expenditures of legal services provided by Justice Canada	4.2
Total 2006-2007 services received without charge	**81.3**

Totals may differ between and within tables due to rounding of figures.

Table 5: Sources of Respendable Revenue and Non-Respendable Revenue

Sources of Respendable Revenue

($ millions)	Actual 2004-2005[1]	Actual 2005-2006[1]	2006-2007			
			Main Estimates	Planned Revenue	Total Authorities	Actual
Biodiversity is conserved and protected						
Information Products	0.0	0.1	--	--	0.0	0.0
Miscellaneous	--	--	0.1	0.1	0.1	--
Realty (Accommodation)	0.1	0.1	0.1	0.1	0.1	0.2
Regulatory Services	0.3	0.2	0.3	0.3	0.3	--
Scientific and Professional Services	0.7	0.6	0.8	0.8	0.8	0.5
Sub-total	**1.1**	**1.0**	**1.2**	**1.2**	**1.2**	**0.7**
Water is clean, safe and secure						
Information Products	0.3	0.2	--	--	0.0	0.1
Realty (Accommodation)	0.1	0.1	0.4	0.4	0.4	0.1
Scientific and Professional Services	2.6	2.1	2.7	2.7	2.7	2.5
Sub-total	**3.0**	**2.4**	**3.1**	**3.1**	**3.1**	**2.7**
Canadians adopt approaches that ensure the sustainable use and management of natural and working landscapes						
Information Products	0.1	0.1	0.1	0.1	0.1	0.0
Realty (Accommodation)	0.3	0.2	0.3	0.3	0.3	0.0
Regulatory Services	0.2	0.2	0.2	0.2	0.2	--
Scientific and Professional Services	1.9	1.3	1.2	1.2	1.2	0.1
Sub-total	**2.4**	**1.9**	**1.7**	**1.7**	**1.7**	**0.1**
Improved knowledge and information on weather and environmental conditions influences decision-making						
Information Products	21.7	20.7	6.3	6.3	6.3	6.7
Miscellaneous	0.2	0.0	--	--	0.0	--
Realty (Accommodation)	0.2	0.3	0.1	0.1	0.1	0.4
Scientific and Professional Services	6.5	6.9	2.2	2.2	2.2	8.7
Sub-total	**28.5**	**27.9**	**8.5**	**8.5**	**8.5**	**15.8**
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions						
Information Products	23.0	22.8	38.5	38.5	38.5	36.9
Miscellaneous	0.2	0.0	0.1	0.1	0.1	--
Realty (Accommodation)	0.2	0.4	0.5	0.5	0.5	0.4
Scientific and Professional Services	7.1	7.8	13.8	13.8	13.8	3.2
Sub-total	**30.5**	**31.0**	**52.9**	**52.9**	**52.9**	**40.5**
Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced						
Information Products	0.0	0.0	0.1	0.1	0.1	0.0
Realty (Accommodation)	0.1	0.1	0.1	0.1	0.1	0.0
Regulatory Services	1.7	1.8	1.9	1.9	1.9	0.2
Scientific and Professional Services	5.2	4.1	4.9	4.9	4.9	4.5
Sub-total	**7.0**	**6.1**	**7.1**	**7.1**	**7.1**	**4.8**
Canadians adopt sustainable consumption and production approaches						
Regulatory Services	0.2	0.2	--	--	0.0	--
Scientific and Professional Services	0.5	0.4	--	--	0.0	0.0
Sub-total	**0.7**	**0.6**	**--**	**--**	**0.0**	**0.0**
Net emissions of greenhouse gases are reduced						
Scientific and Professional Services	0.8	0.1	0.1	0.1	0.1	0.0
Sub-total	**0.8**	**0.1**	**0.1**	**0.1**	**0.1**	**0.0**
Canadians understand the impacts of climate change and adapt to its effects						
Information Products	0.2	0.0	--	--	0.0	0.1
Sub-total	**0.2**	**0.0**	**--**	**--**	**0.0**	**0.1**
Total Respendable Revenue	**74.3**	**71.0**	**74.7**	**74.7**	**74.7**	**64.8**

Totals may differ between and within tables due to rounding of figures.

Sources of Non-Respendable Revenue

($ millions)	Actual 2004-2005[1]	Actual 2005-2006[1]	2006-2007			
			Main Estimates	Planned Revenue	Total Authorities	Actual
Biodiversity is conserved and protected						
Fines	0.1	0.0	--	--	--	--
Licenses and Permits	2.8	3.2	4.2	4.2	4.2	3.1
Proceeds from the disposal of surplus Crown assets	0.0	0.1	--	--	--	0.0
Regulatory Services	0.2	0.2	0.2	0.2	0.2	0.1
Miscellaneous	0.0	0.3	--	-	--	1.6
Sub-total	**3.1**	**3.8**	**4.4**	**4.4**	**4.4**	**4.8**
Water is clean, safe and secure						
Scientific and Professional Services	--	--	0.2	0.2	0.2	--
Miscellaneous	0.0	0.0	--	--	--	0.1
Third Party Agreements	0.2	0.2	0.2	0.2	0.2	0.3
Sub-total	**0.2**	**0.2**	**0.4**	**0.4**	**0.4**	**0.4**
Canadians adopt approaches that ensure the sustainable use and management of natural and working landscapes						
Scientific and Professional Services	--	-	0.1	0.1	0.1	-
Proceeds from the disposal of surplus Crown assets	0.0	0.0	--	--	--	0.0
Miscellaneous	0.0	0.1	--	--	--	0.0
Sub-total	**0.1**	**0.2**	**0.1**	**0.1**	**0.1**	**0.0**
Improved knowledge and information on weather and environmental conditions influences decision-making						
Information Products	0.7	0.8	1.0	1.0	1.0	0.1
Proceeds from the disposal of surplus Crown assets	0.0	0.1	--	--	--	0.1
Miscellaneous	1.6	1.6	2.3	2.3	2.3	0.6
Royalties	0.1	0.2	0.2	0.2	0.2	0.4
Sub-total	**2.4**	**2.6**	**3.4**	**3.4**	**3.4**	**1.2**
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions						
Information Products	0.7	0.9	1.1	1.1	1.1	0.6
Proceeds from the disposal of surplus Crown assets	0.0	0.1	--	--	--	0.0
Miscellaneous	1.8	1.8	2.5	2.5	2.5	3.9
Royalties	0.1	0.2	0.2	0.2	0.2	0.0
Sub-total	**2.6**	**3.0**	**3.8**	**3.8**	**3.8**	**4.5**
Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced						
Proceeds from the disposal of surplus Crown assets	0.0	0.2	--	--	--	0.5
Miscellaneous	0.2	0.3	0.1	0.1	0.1	0.1
Royalties	0.1	0.1	--	--	--	0.2
Sub-total	**0.3**	**0.6**	**0.1**	**0.1**	**0.1**	**0.7**
Net emissions of greenhouse gases are reduced						
Proceeds from the disposal of surplus Crown assets	0.2	0.1	--	--	--	--
Miscellaneous	**0.2**	**0.1**	--	--	--	**0.0**
Total Non-Respendable Revenue	**9.0**	**10.7**	**12.1**	**12.1**	**12.1**	**11.8**

Total Respendable and Non-Respendable Revenue	**83.3**	**81.7**	**86.8**	**86.8**	**86.8**	**76.6**

Totals may differ between and within tables due to the rounding of figures.

This table lists various sources of respendable and non-respendable revenue. To clarify the types of revenues that fall under these sources, short definitions are given below:

Scientific and Professional Services: research and analysis, telecommunications, hydrometrics, consulting services, training, and wildlife studies and surveys.
Information Products: data extracts and access, publications, and hydrometric and weather products.
Miscellaneous: Employee Benefit Plan (EBP) recoveries and student parking fees.
Regulatory Services: ocean disposal permit applications and monitoring fees, new chemical notification, and other permits and fees.
Realty (Accommodation): living accommodations, rentals, entry fees, concessions, and National Water Research Institute building recoveries.
Royalties: revenues collected from the licensing of Intellectual Property.
Co-Marketing Initiatives: marketing and advertising sales.
Licences and permits: Migratory Bird Hunting Permit & Stamps and Taxidermy and Aviculture Permits.
Fines: fines levied under the *Canadian Environmental Protection Act* and other miscellaneous fines.
Third Party agreements: agreements for Water Management Services under the authority for Lake of the Woods Control Board (Salaries) and Ottawa River Regulation Secretariat (Salaries).
Proceeds from the disposal of surplus Crown assets: gains on the sale of non capital assets and proceeds from the sale of capital assets excluding real property.

(1) Due to the change in reporting structure, the amounts by Program Activity were calculated based on our departmental crosswalk.
Refer to Environment Canada's previous Performance Reports for detailed financial information.

Respendable Revenues:
The most significant decline in anticipated revenue is due to a change in the accounting treatment for the funds the Department receives from Natural Resources Canada for the Program of Energy Research and Development (PERD). Beginning in 2006-2007, transactions related to this program are now accounted for in an OGD suspense account rather than vote netted revenues (VNR). We have also seen a decline in revenues under the contract between Environment Canada and NAV CANADA as well as with our interdepartmental agreements with the Canadian Coast Guard and the Department of National Defence (DND). Some projects from DND Search and Rescue funds entered the Department through the Supplementary Estimates rather than VNR. The other minor variances are mainly due to lower overall commercial revenues.

Table 6a: *User Fees Act*

Regulatory Services

Fee Name	Ocean Disposal Permit Application Fees			
Fee Type	R			
Fee Setting Authority	CEPA, 1999, ss.135(1); *Disposal at Sea Regulations*			
Date Last Modified	2001			
Performance Standards	Under the application fee, each application is reviewed according to Schedule 6 of CEPA (*Canadian Environmental Protection Act*) and the Disposal at Sea Regulations. This involves public notice, an application that provides detailed data, scientific review and payment of fees. Each permit is published in the Canada Gazette from about 120 days of applying if the application is complete and there are no issues from other stakeholders. Under the permit fee, Environment Canada is committed to annual client meetings to review monitoring plans, conduct representative disposal site monitoring according to National guidelines, produce an annual report on activity, produce a financial summary of revenues, expenses and value for clients, and report results of monitoring to the London Convention office.			
Performance Results	Met service standards. Applications were reviewed within the 120 day timeframe. Advice was provided to applicants to assist timely permit reviews. Monitoring plans were reviewed with key clients. Disposal site monitoring was conducted and reported. For further details see Environment Canada's Disposal at Sea Program website.[20]			
(Thousands of Dollars)	**2006-2007**	**2007-2008** (1)	**2008-2009** (1)	**2009-2010** (1)
Forecast Revenue	200.0	200.0	200.0	200.0
Actual Revenue	217.5	Not applicable	Not applicable	Not applicable
Estimated Full Cost	Unknown (1)	Unknown	Unknown	Unknown

Fee Name	Ocean Disposal Site Monitoring Fees			
Fee Type	R			
Fee Setting Authority	FAA, par. 19.1(a); *Ocean Dumping Permit Fee Regulations* (Site Monitoring)			
Date Last Modified	2001			
Performance Standards	The permit holder has access to a permitted site and ability to dispose of 1000 cu m of dredged or excavated material for each $470 paid. The collected revenue is used by the disposal at sea program to operate a representative national disposal site monitoring program which allows the client group as a whole to continue to have access to suitable disposal sites and demonstrates that the resource is used sustainably for the Canadian public.			
Performance Results	Met the service standards. Permit holders disposed of dredged and excavated material as authorized by their permits. Representative monitoring was carried out in accordance with monitoring guidelines.			
(Thousands of Dollars)	**2006-2007**	**2007-2008**	**2008-2009** (2)	**2009-2010** (2)
Forecast Revenue	1,200.0	1,400.0	1,500.0	1,500.0
Actual Revenue	1,465.2	Not applicable	Not applicable	Not applicable
Estimated Full Cost	1,300.0	1,300.0	1,600.0	1,600.0

Fee Name	New Substance Notification			
Fee Type	R			
Fee Setting Authority	CEPA, 1999, s. 328, New *Substances Fees Regulations*			
Date Last Modified	2002			
Performance Standards	All notifications are reviewed and decisions taken within the prescribed timeframes. Requests are acknowledged by letter, e-mail or fax within 10 business days of receipt.			
Performance Results	All new substances notifications are processed and decisions taken within the legislative time period. Requests made by letter, email or fax are responded to 95% of the time within 10 days.			
(Thousands of Dollars)	**2006-2007**	**2007-2008**	**2008-2009**	**2009-2010**
Forecast Revenue	400.0	400.0	400.0	400.0
Actual Revenue	500.0	Not applicable	Not applicable	Not applicable
Estimated Full Cost	2,200.0	2,200	2,200	2,200

Fee Name	Migratory Bird Program - Migratory Game Bird Hunting Permit (3)
Fee Type	R

[20] Environment Canada, Environment Canada's Disposal at Sea Program: http://www.ec.gc.ca/seadisposal

Fee Setting Authority	MBCA, 1994, s. 12; *Migratory Bird Regulations* C.R.C., c. 1035			
Date Last Modified	1998 - SOR/98-314			
Performance Standards	Hunting permits are sold for $8.50 at Canada Post Corporation (CPC) offices and selected provincial and private vendors from August 1st until March 10th the following year. The performance standard is to ensure adequate numbers of permits are available for distribution within that timeframe. Permits validated by the Habitat Conservation Stamp are mandatory for migratory game bird hunting. The hunter and/or his/her representative must physically go to a vendor that sells the permit. The permit is bought on the spot, therefore, per the service standard; the hunter can get a hunting permit upon request. People purchasing the permit should receive one within minutes of completing the transaction.			
Performance Results	99.9% of permits were available to meet hunter demand within the specified time period. All permits that were purchased were delivered within minutes of buying one.			
(Thousands of Dollars)	**2006-2007**	**2007-2008**	**2008-2009**	**2009-2010**
Forecast Revenue	2,006.0	2,006.0	2,006.0	2,006.0
Actual Revenue	1,451.0	Not applicable	Not applicable	Not applicable
Estimated Full Cost	960.0	960.0	960.0	960.0

Fee Name	**Migratory Bird Program - Habitat Conservation Stamp**			
Fee Type	R			
Fee Setting Authority	MBCA, 1994, s. 12; *Migratory Bird Regulations*			
Date Last Modified	1998			
Performance Standards	Conservation Stamps are sold for $8.50 each and must be affixed to the Migratory Game Bird Hunting Permit to validate it. The performance standard is to ensure adequate numbers of stamps are available for distribution at Canada Post Corporation (CPC) offices and selected provincial and private vendors from August 1st until March 10th the following year. Stamps are also sold as collectables through CPC offices and vendors selected by Wildlife Habitat Canada (WHC). One cannot purchase a permit without the stamp pre-affixed to it, therefore, the hunter and/or his/her representative must physically go to a vendor that sells the permit. The permit is bought on the spot, thus the service standard is that the hunter receives a wildlife stamp affixed to the permit. People purchasing the permit should receive the stamp within minutes of doing the transaction. For Collectors: Stamps bought from CPC can be purchased by mail order, telephone, FAX and at selected CPC offices and require a two week processing period. Stamps bought from WHC selected vendors can be ordered in person, by telephone and mail order. Processing time is two weeks if not bought in person.			
Performance Results	Enough stamps to meet hunter and collector demands were available for purchase within the specified time period. Stamps bought from CPC by mail order, telephone, FAX and at selected CPC offices have been processed within the two-week processing period. Stamps bought from WHC selected vendors either in person, by telephone or mail order, were processed within the two-week processing period. With funds generated from Stamp revenue, Wildlife Habitat Canada funds several habitat conservation programs and projects that contribute to Environment Canada's key result "Biological diversity is conserved".			
(Thousands of Dollars)	**2006-2007**	**2007-2008**	**2008-2009**	**2009-2010**
Forecast Revenue	2,200.0	2,200.0	2,200.0	2,200.0
Actual Revenue	1,583.8	Not applicable	Not applicable	Not applicable
Estimated Full Cost	1,583.8	2,200.0	2,200.0	2,200.0

Fee Name	**Migratory Bird Program - Avicultural permits, Taxidermist permits and Eiderdown permits**
Fee Type	R
Fee Setting Authority	MBCA, 1994, s. 12; *Migratory Bird Regulations*
Date Last Modified	Prior to 1978
Performance Standards	These permits are issued by Environment Canada's regional offices for a fee of $10.00 each after reviewing applications from the public. To be successful, there are requirements that must be met, described in the CWS Permit Policy - for example with respect to aviculture, a person must demonstrate that they will wing-clip or keep the birds in an enclosure to prevent mixing with wild populations. Each region can attach specific conditions to each permit. Permits generally expire December 31st of the year issued. The performance standard is to review all applications received and issue permits or notify applicants of the reasons a permit is denied within 30 days of receiving the application.
Performance Results	All applications are processed within the 30 days timeframe unless site inspections are required. In those cases (10% of all the applications), an additional 30 days were required to process the application.

(Thousands of Dollars)	2006-2007	2007-2008	2008-2009	2009-2010
Forecast Revenue	8.7	8.2	8.2	8.2
Actual Revenue	10.1	Not applicable	Not applicable	Not applicable
Estimated Full Cost	34.0	34.0	34.0	34.0

Fee Name	**Cap Tourmente National Wildlife Area - Permit Sales**			
Fee Type	R			
Fee Setting Authority	CWA, s. 12; *Canada Wildlife Act. Area Regulations*			
Date Last Modified	2001			
Performance Standards	To ensure hunter satisfaction during the hunting season in Cap-Tourmente, we make sure that there are well-maintained facilities such as attractive trails, pleasant eating areas that are appreciated by hunters, sufficient parking spaces, bathrooms, etc.). Such spaces are necessary in meeting the needs of hunters so that they have a pleasant hunting trip and will return in future years.			
Performance Results	According to a survey of 2005 license holders, hunters were greatly satisfied with the quality of facility maintenance.			
(Thousands of Dollars)	**2006-2007**	**2007-2008**	**2008-2009**	**2009-2010**
Forecast Revenue	190.0	190.0	190.0	190.0
Actual Revenue	99.1	Not applicable	Not applicable	Not applicable
Estimated Full Cost	152.1	225.0	225.0	225.0

Other Products and Services

Fee Name	**Fees charged for the processing of access requests filed under the *Access to Information Act* (ATIA)**			
Fee Type	O			
Fee Setting Authority	*Access to Information Act*, ss. 11(1) and par. 77(1)d); Access to Information Regulations			
Date Last Modified	1992			
Performance Standards	A response provided within 30 days following receipt of request; the response time may be extended pursuant to section 9 of the ATIA. A notice of extension must be sent within 30 days after receipt of the request. The *Access to Information Act* website[21] provides further details.			
Performance Results	Statutory deadlines were met 83% of the time. It is the Department's practice to waive fees where the total owing per request amounts to less than $25.			
(Thousands of Dollars)	**2006-2007**	**2007-2008**	**2008-2009**	**2009-2010**
Forecast Revenue	12.7	13.1	13.6	14.1
Actual Revenue	12.7	Not applicable	Not applicable	Not applicable
Estimated Full Cost	657.6	970.0	1,000.0	1,030.0

Fee Name	**Cap Tourmente National Wildlife Area - Entry Sales**			
Fee Type	O			
Fee Setting Authority	CWA, s. 12; *Canada Wildlife Act. Area Regulations*			
Date Last Modified	2003			
Performance Standards	To ensure hunter satisfaction during the operating season in Cap-Tourmente, we make sure that clients can make use of well-maintained facilities such as attractive trails, pleasant eating areas that are appreciated by hunters, sufficient parking spaces, bathrooms, etc.). Such spaces are necessary in meeting the needs of hunters so that they have a pleasant hunting trip and will return in future years. Visitors also have access to bilingual greeting and interpretation services so they can learn more about the Cap-Tourmente site and thereby meet their need to know more about the nature of the site.			
Performance Results	According to comments from a number of visitors, they are generally satisfied with the greeting and interpretation services offered as well as with facilities maintenance.			
(Thousands of Dollars)	**2006-2007**	**2007-2008**	**2008-2009**	**2009-2010**
Forecast Revenue	231.0	226.0	226.0	226.0
Actual Revenue	173.7	Not applicable	Not applicable	Not applicable
Estimated Full Cost	338.2	260.0	260.0	260.0

Subtotal R (Thousands)	**2006-2007**	**2007-2008**	**2008-2009**	**2009-2010**
Forecast Revenue	6,204.7	6,404.2	6,404.2	6,404.2
Actual Revenue	5,326.7	Not applicable	Not applicable	Not applicable
Estimated Full Cost	6,229.9	6,919.0	7,219.0	7,219.0

[21] Department of Justice Canada, *Access to Information Act:* http://laws.justice.gc.ca/en/A-1/218072.html

Subtotal O (Thousands)	2006-2007	2007-2008	2008-2009	2009-2010
Forecast Revenue	243.7	239.1	239.6	240.1
Actual Revenue	186.4	Not applicable	Not applicable	Not applicable
Estimated Full Cost	995.8	1,230.0	1,260.0	1,290.0

Total (Thousands)	2006-2007	2007-2008	2008-2009	2009-2010
Forecast Revenue	6,448.4	6,643.3	6,743.8	6,744.3
Actual Revenue	5,513.2	Not applicable	Not applicable	Not applicable
Estimated Full Cost	7,225.6	8,149.0	8,479.0	8,509.0

Notes:
(1) An analysis to determine the current cost of reviewing a permit is on hold pending budget availability.
(2) Amount is expected to increase if ocean disposal activities and therefore monitoring requirements increase in the North.
(3) Fees for rights and privileges may exceed the cost of administering the program ensuring a fair market return for Canadian citizens.

Legend:
CEPA = *Canadian Environmental Protection Act*
CWA = *Canada Wildlife Act*
FAA = *Financial Administration Act*
MBCA = *Migratory Birds Convention Act*
R = Regulatory
O = Other Products and Services

Table 6b: Policy on Service Standards for External Fees

Regulatory Services

Fee Name	Ocean Disposal Permit Application Fees
Service Standard	Under the application fee, each application is reviewed according to Schedule 6 of CEPA (*Canadian Environmental Protection Act*) and the Disposal at Sea Regulations. This involves public notice, an application that provides detailed data, scientific review and payment of fees. Each permit is published in the Canada Gazette from about 120 days of applying if the application is complete and there are no issues from other stakeholders. Under the permit fee, EC is committed to annual client meetings to review monitoring plans, conduct representative disposal site monitoring according to National guidelines, produce an annual report on activity, produce a financial summary of revenues, expenses and value for clients, and report results of monitoring to the London Convention office.
Performance Result	Met service standards. Applications were reviewed within the 120 day timeframe. Advice was provided to applicants to assist timely permit reviews. Monitoring plans were reviewed with key clients. Disposal site monitoring was conducted and reported. For further details see the Disposal at Sea Program website.[22]
Stakeholder Consultation	Application fees set in 1993 were rolled over in 2001. A Regulatory Impact Assessment Statement and multi-stakeholder consultations were conducted before each regulation was enacted. Multi-stakeholder consultations were carried out in 1996-98 for setting the permit fee. There was general acceptance for the fee, but concern for how it would be set. Permit holders indicated that a proportional volume-based fee was preferred. As well, EC (Environment Canada) committed to regular meetings with permit holders, reporting, and to review the fee three years after implementation. The review was done in 2003 and its report concluded no change to the fee was needed. All consultations from 1993-2003 involved discussion papers, public meetings and final reports. For further details see Disposal at Sea Program website.[23]

Fee Name	Ocean Disposal Site Monitoring Fees
Service Standard	The permit holder has access to a permitted site and ability to dispose of 1000 cu m of dredged or excavated material for each $470 paid. The collected revenue is used by the disposal at sea program to operate a representative national disposal site monitoring program which allows the client group as a whole to continue to have access to suitable disposal sites and demonstrates that the resource is used sustainably for the Canadian public.
Performance Result	Met the service standards. Permit holders disposed of dredged and excavated material as authorized by their permits. Representative monitoring was carried out in accordance with monitoring guidelines.
Stakeholder Consultation	Multi-stakeholder consultations were carried out in 1996-98 for setting the permit fee. There was general acceptance for the fee, but concern for how it would be set. Permit holders indicated that a proportional volume-based fee was preferred. As well, EC committed to regular meetings with permit holders, reporting, and to review the fee three years after implementation. The review was done in 2003 and its report concluded that no change to the fee was needed. Further consultations were undertaken from 1993-2003 involving discussion papers, public meetings and final reports. For further details see the Disposal at Sea Program website.[24] Current consultations are ongoing through a discussion document to examine ways of reducing or improving delivery of the fees.

Fee Name	New Substance Notification
Service Standard	All notifications are reviewed and decisions taken within the prescribed timeframes. Requests are acknowledged by letter, e-mail or fax within 10 business days of receipt.
Performance Result	All new substances notifications are processed and decisions taken within the legislative time period. Requests made by letter, email or fax are responded to 95% of the time within 10 days.

[22] Environment Canada, Environment Canada's Disposal at Sea Program: http://www.ec.gc.ca/seadisposal/

[23] Environment Canada, Environment Canada Disposal at Sea Program, Regulatory Impact Analysis Statement: http://www.ec.gc.ca/seadisposal/regs/min_reg_g2_e.html

[24] Environment Canada, Environment Canada Disposal at Sea Program: http://www.ec.gc.ca/seadisposal/regs/min_reg_g2_e.html

Stakeholder Consultation	Amendments to the New Substances Notifications Regulations published in Canada Gazette Part II in September 2005. Under the Service Delivery Improvement Initiative of the New Substances Division, a Service Charter was developed. Other government departments, regional compliance promotion groups and industry had an opportunity for input into the service charter and standards. The Service Charter and standards was published in 2006.

Fee Name	**Migratory Bird Program - Migratory Game Bird Hunting Permit**
Service Standard	Hunting permits are sold for $8.50 at Canada Post Corporation (CPC) offices and selected provincial and private vendors from August 1st until March 10th the following year. The performance standard is to ensure adequate numbers of permits are available for distribution within that timeframe. Permits validated by the Habitat Conservation Stamp are mandatory for migratory game bird hunting. The hunter and/or his/her representative must physically go to a vendor that sells the permit. The permit is bought on the spot, therefore, per the service standard; the hunter can get a hunting permit upon request. People purchasing the permit should receive one within minutes of completing the transaction.
Performance Result	99.9% of permits were available to meet hunter demand within the specified time period. All permits that were purchased were delivered within minutes of buying one.
Stakeholder Consultation	No recent consultations have been conducted. The revenues collected from the sale of the permit are deposited directly into the Consolidated Revenue Fund. Program costs incurred by the department to deliver the permit program come out of the CWS A-base budget. There is an average of 4-5 complaints each year that permits were not available from CPC because the CPC outlet did not re-order more stock. Issues like this are rectified by CPC within 2 days. The permit fee was increased by $5.00 in 1998.

Fee Name	**Migratory Bird Program - Habitat Conservation Stamp**
Service Standard	Conservation Stamps are sold for $8.50 each and must be affixed to the Migratory Game Bird Hunting Permit to validate it. The performance standard is to ensure adequate numbers of stamps are available for distribution at Canada Post Corporation (CPC) offices and selected provincial and private vendors from August 1st until March 10th the following year. Stamps are also sold as collectables through CPC offices and vendors selected by Wildlife Habitat Canada (WHC). One cannot purchase a permit without the stamp pre-affixed to it, therefore, the hunter and/or his/her representative must physically go to a vendor that sells the permit. The permit is bought on the spot, thus the service standard is that the hunter receives a wildlife stamp affixed to the permit. People purchasing the permit should receive the stamp within minutes of doing the transaction. For Collectors: Stamps bought from CPC can be purchased by mail order, telephone, FAX and at selected CPC offices and require a two week processing period. Stamps bought from WHC selected vendors can be ordered in person, by telephone and mail order. Processing time is two weeks if not bought in person.
Performance Result	Enough stamps to meet hunter and collector demands were available for purchase within the specified time period. Stamps bought from CPC by mail order, telephone, FAX and at selected CPC offices have been processed within the two-week processing period. Stamps bought from WHC selected vendors either in person, by telephone or mail order was processed within the two-week processing period. With funds generated from Stamp revenue, Wildlife Habitat Canada funds several habitat conservation programs and projects that contribute to EC's key result "Biological diversity is conserved".
Stakeholder Consultation	The CWS (Canadian Wildlife Service) will be conducting in 2007 a Public Consultation on the future of the Wildlife Habitat Conservation Stamp program. CWS conducted a program evaluation in 2005-06 of WHC (Wildlife Habitat of Canada) and the stamp program. Stakeholders within the Federal/Provincial governments as well as those in the NGO (Non-Government Organizations) community were interviewed. The published results can be found on Environment Canada's, Audit and Evaluation website.[25] The prices of single stamps are fixed by Regulations. Booklets of Stamps, etc. are sold at a retail price mutually agreed to by both EC and WHC and in accordance with established practices of the philatelic industry; TB re-approved the contribution agreement in 2002.[26] No complaints have been received that stamps were unavailable. Stamp fees increased by $1.00 in 1991.

[25] Environment Canada, Audit and Evaluation: http://www.ec.gc.ca/ae-ve

[26] Environment Canada, Migratory Birds Conservation: http://www.cws-scf.ec.gc.ca/birds/status/index_e.cfm

Fee Name	Migratory Bird Program - Avicultural permits, Taxidermist permits and Eiderdown permits
Service Standard	These permits are issued by EC regional offices for a fee of $10.00 each after reviewing applications from the public. To be successful, there are requirements that must be met, described in the CWS Permit Policy - for example with respect to aviculture, a person must demonstrate that they will wing-clip or keep the birds in an enclosure to prevent mixing with wild populations. Each region can attach specific conditions to each permit. Permits generally expire December 31st of the year issued. The performance standard is to review all applications received and issue permits or notify applicants of the reasons a permit is denied within 30 days of receiving the application.
Performance Result	All applications are processed within the 30 days timeframe unless site inspections are required. In those cases (10% of all the applications), an additional 30 days were required to process the application.
Stakeholder Consultation	Since revenues and cost are insignificant and since no complaints occurred, consultations are not currently planned.

Fee Name	Cap Tourmente National Wildlife Area - Permit Sales
Service Standard	To ensure hunter satisfaction during the hunting season in Cap-Tourmente, we make sure that there are well-maintained facilities such as attractive trails, pleasant eating areas that are appreciated by hunters, sufficient parking spaces, bathrooms, etc.). Such spaces are necessary in meeting the needs of hunters so that they have a pleasant hunting trip and will return in future years.
Performance Result	According to a survey of 2005 license holders, hunters were greatly satisfied with the quality of facility maintenance.
Stakeholder Consultation	No formal consultation was conducted this year given that the very high level of satisfaction among hunters. Hunters were given the opportunity to complete a survey to make comments and suggestions. When they suggested minor improvements for facility maintenance, these were implemented as quickly as possible. It was also noted that there were not many snow geese, but this phenomenon is beyond our control.

Information Services

Fee Name	Hydrometric Data
Service Standard	Services include individually negotiated contracts with provincial and territorial agencies for the provision of hydrometric data. (e.g., water quantity).
Performance Result	Performance results and standards are defined in contracts (e.g., quality control of data).
Stakeholder Consultation	Consultation is done directly with clients, sometimes in partnership with the provincial representative. The recourse mechanism is defined in the contracts. During negotiations stakeholders and Environment Canada agree on all terms before the contract is signed.

Fee Name	Weather Data
Service Standard	Services include individually negotiated contractual arrangements with a wide variety of users for climate data (e.g., minimum and maximum temperature). Charges are generally for delivery and packaging of data. Some products are delivered via monthly subscriptions for data.
Performance Result	Met service standards as established in contract. E.g. quality control.
Stakeholder Consultation	Consultation is done directly with clients (for contracts), during which the recourse mechanism is defined and client representatives are identified. During negotiations, stakeholders and Environment Canada agree on all terms before the contract is signed.

Fee Name	Weather Forecasts/Products
Service Standard	Services include individually negotiated contracts for weather forecasts, products and services, e.g., consultations with meteorologists, graphic or weather products, etc.
Performance Result	All products and services are fairly unique or one-off in nature. Service standards are established under contract. Most products are monitored for accuracy and consistency; many contractual agreements include access to forecasters and service representatives if issues arise.
Stakeholder Consultation	Contractual agreements are negotiated with the clients. A client representative is identified for recourse mechanism and dispute resolution purposes. Draft standards are being developed for more standardized products such as 1-900 telephone consultation.

Fee Name	Laboratory & Other Scientific Services

Service Standard	Services include individually negotiated contracts for tests and/or analysis on crude oil samples and weathered oils; air quality; exhaust emissions and fuel consumption. Environment Canada details in the agreement the service standards. Generally, EC provides sample bottles (washed and free of contaminants), logs samples and all pertinent field information on the Laboratory Information Management System; carries out all necessary laboratory QA/QC testing (the lab is accredited by CAEAL (Canadian Association for Environmental Analytical Laboratories), under International Organization for Standardization 17025); prepares and submits reports (hard copy or spreadsheet format) on samples submitted; provides statistical analysis of results. The number of days that the lab has to deliver results varies according to the contract.
Performance Result	All services are fairly unique or one-off in nature. Met service standards as established in contract (standards/methodology/protocols to be followed are described in the contract). Internal control processes are followed, sample results are delivered in a timely manner and discussions are held with clients to ensure that there are no complaints or concerns. Results have been delivered within the timeframe previously agreed in 100% of the contracts.
Stakeholder Consultation	Consultations are done through contractual agreements negotiated with the clients -- clauses on schedule, quantity (e.g. number of samples), cost and standards/methodology/protocols to be followed are included in the contract. Stakeholders and Environment Canada agree on all terms before the contract is signed. Work does not commence until both parties have signed the agreement.

Scientific and Professional Services

Fee Name	**Quality Assurance Program**
Service Standard	Services include individually negotiated agreements and contracts with provincial, territorial and non-government agencies (i.e., providing all the documentation for quality systems).
Performance Result	All services and products are fairly unique or one-off in nature. Service standards are negotiated in the contract or agreement.
Stakeholder Consultation	Consultation is done directly with clients (i.e., determining analysis output). The recourse mechanism is defined in existing contracts and agreements, with client representatives identified.

Fee Name	**Water Management Services**
Service Standard	Services include individually negotiated agreements and contracts with provincial, territorial and non-government agencies (i.e., determining the success of the remediation by monitoring concentrations of PAHs (Polycyclic Aromatic Hydrocarbons) in water samples).
Performance Result	All services and products are fairly unique or one-off in nature. Service standards are negotiated in the contract or agreement.
Stakeholder Consultation	Consultations are done directly with clients (i.e., number of samples to be analyzed). The recourse mechanism is defined in existing contracts and agreements, with client representatives identified.

Other Products and Services

Fee Name	**Fees charged for the processing of access requests filed under the *Access to Information Act* (ATIA)**
Service Standard	A response provided within 30 days following receipt of request; the response time may be extended pursuant to section 9 of the ATIA. A notice of extension must be sent within 30 days after receipt of the request. The *Access to Information Act* website[27] provides further details.
Performance Result	Statutory deadlines were met 83% of the time. It is the Department's practice to waive fees where the total owing per request amounts to less than $25.
Stakeholder Consultation	The service standard is established by the *Access to Information Act* and the Access to Information Regulations. Consultations with stakeholders were undertaken by the Department of Justice and the Treasury Board Secretariat for amendments done in 1986 and 1992.

Fee Name	**Cap Tourmente National Wildlife Area - Entry Sales**
Service Standard	To ensure hunter satisfaction during the operating season in Cap-Tourmente, we make sure that clients can make use of well-maintained facilities such as attractive trails, pleasant eating areas that are appreciated by hunters, sufficient parking spaces, bathrooms, etc.). Such spaces are necessary in

[27] Department of Justice Canada, *Access to Information Act:* http://laws.justice.gc.ca/en/A-1/218072.html

	meeting the needs of hunters so that they have a pleasant hunting trip and will return in future years. Visitors also have access to bilingual greeting and interpretation services so they can learn more about the Cap-Tourmente site and thereby meet their need to know more about the nature of the site.
Performance Result	According to comments from a number of visitors, they are generally satisfied with the greeting and interpretation services offered as well as with facilities maintenance.
Stakeholder Consultation	No formal consultation was conducted this year. There is a suggestion box at the site so visitors can make comments or suggestions. In order to plan student visits, we meet with the school teachers in advance so we can accommodate their expectations in terms of information disseminated and how the visits are conducted.

Fee Name	**Entry fees - Montreal Biosphere**
Service Standard	Biosphere visitors have year-round access to greeting and interpretation services in the presentation rooms, facilitation services on various environmental themes and education workshops aimed mostly at groups, as well as maintained facilities (presentation rooms, rest areas, lookouts, parking, etc.).
Performance Result	According to written comments gathered daily from visitors and evaluation sheets completed by people responsible for the groups, visitors are for the most part very satisfied with their visit experience, individually or as a group, and other services that are offered.
Stakeholder Consultation	When there are group visits, the person responsible (e.g. teacher) must complete an evaluation of the services received. As for individual visitors, a sampling survey is conducted every three years or so.

Fee Name	**Haying & Grazing (CWS Agricultural Activity)**
Service Standard	A standing request list - "Notice of Interest" - is searched to identify applicants interested in the activity e.g., haying, grazing, crop. If no interest is shown then a call for applications is made through ads in local papers or other suitable means. Interested persons are asked to fill out a Canadian Wildlife Service (CWS) agricultural activity application form. Application forms are reviewed to determine the most suitable candidate and a reference check of the candidate(s) is conducted. The current CWS agricultural permit application form was developed in 1984 and based on the Saskatchewan Environment & Resource Management and Saskatchewan Agriculture and Food permit process. It was revised in 1988 in response to drought conditions. Permits are issued for a period of less than one year and expire on December 31st of the year issued. The fee structure for haying and grazing is based upon the current rates used by Saskatchewan Environment and Saskatchewan Agriculture and Food to ensure "equal service for equal fee" between departments is achieved.
Performance Result	Federal lands are monitored to ensure permit conditions are being met and habitat management goals (e.g., maintain native plant community and habitat for wildlife and reduce weed and exotic species invasion) are achieved through the activity. If so, the permit will be granted in subsequent years (subject to annual review).
Stakeholder Consultation	The most suitable applicant is contacted to confirm their interest in obtaining a permit. Discussions are held to ensure the applicant understands and agrees to all conditions that will be on the permit. It is also ensured that the applicant understands the permit is only for one season, and that if any conditions of the permit are not followed, the permit may be immediately revoked by the Minister. Prospective grazing patrons must also submit a grazing plan which is reviewed and refined if required. Changes are reviewed with the patron to make sure they understand and agree with final grazing plan and permit conditions.

Fee Name	**National Pollutants Release Inventory Workshops & Seminars**
Service Standard	The number of workshops and their length (i.e. half-day, full-day, etc.) is determined by the changes in the program each year. The changes in the program influence the needs of the participants (e.g., no changes mean a moderate interest in workshops; a lot of change generates a high interest in workshops). Therefore, a high volume of requests from participants through phone, e-mail, etc. indicates a significant need for workshops. Each year we assume that 80% of the participants will be satisfied with the workshops. We assume 80% as some participants are looking for more detail while others are looking for less detail. We try to rectify this by offering two types of workshops, one for experienced reporters and another for inexperienced reporters, however, some participants can only attend based on date and availability and therefore end up in a workshop that does not provide them with full satisfaction. Starting fiscal year 2007/08, participants will no longer be charged for attending these workshops and seminars.

Performance Result	An 80% satisfaction rate was registered from the survey.
Stakeholder Consultation	Participants provided input through the Evaluation Sheet handed out at the end of workshop on course material, course delivery and facilities. Areas of improvement were identified from participants' feedback from the survey. A report is also compiled from the survey and submitted to headquarters.

Fee Name	**Sable Island Logistical Support Fees**
Service Standard	Logistical support fees are charged to visitors of Sable Island for such things as aircraft landing, fuel, accommodations and access to food supplies, etc. Recovery of costs is for work performed on the Island for various projects. Specific fees are included in the CCG Visitors Guidelines provided to clients when they initially request permission to visit.
Performance Result	Operational groups that work on Sable Island are satisfied with the services they receive and the subsequent fees that are charged. All fees are derived by computing true costs of delivering the service(s). Fees are presented to clients in a very transparent manner so that they are fully aware of which service they are paying for and the associated cost. Some short-term visitors have expressed their unhappiness with the costs due to their limited resources. Again, these fees are supported by the fact that they reflect the true costs of delivering the service(s). Nevertheless close to 95% of our clients have been satisfied this year.
Stakeholder Consultation	Fees are calculated on a purely cost recovery basis, there is no profit being generated for Environment Canada. Stakeholders are advised of logistical fees in advance of using services on Sable Island.

Fee Name	**Publications and publication services**
Service Standard	Most publications are provided free of charge. Some publications are sold to cover the printing costs of the Publications section and to underwrite the cost of production (translation, editing, design and layout). Publications are promoted through various vehicles and tools including catalogue (online), conferences, trade fairs, promotional flyers, and the Canada Gazette. Clients include departments, corporations, institutions, as well as the public. Orders are received online via an ordering site or by phone, e-mail and facsimile. Each order is treated chronologically and an order tracking system is in place. Orders are categorized by priority with those involving legal statutes, ministerial enquiries and rush orders being treated as high priorities. Turn-around time for individual orders (actual invoicing, packaging and shipping) is within 3-5 working days. The packaging and shipping is done at a separate location (Distribution Centre - 151, Jean-Proux, Gatineau QC, K1A 0H3). Items are, for the most part, shipped by Canada Post unless the client chooses alternative means in which the cost associated is fully recovered by the Department. In addition to direct mail, publications are also distributed through government libraries, electronic distribution, and conferences.
Performance Result	The online ordering setup has a built-in tracking system. For audit purposes, all supporting documentation (purchase orders, requests, etc.) are attached to the invoice. Most items are prepaid with the exception of other government departments and Canadian companies set up for purchase orders. For international orders, we ask for prepayment before shipping the items in an effort to prevent minimal recoveries at year-end. The only delays that we have experienced in the past are on the reprinting end. The online order tracking system allows us to view the orders, post invoicing, work order and shipping information and finally to chronologically list all correspondence with the client. Items are categorized as PENDING, PROCESSING and COMPLETED and are viewed on a daily basis to make sure that all orders are completed in a timely fashion.
Stakeholder Consultation	Clients have our 1-800 number in order to voice concerns / complaints.

Table 7: Progress against the Department's Regulatory Plan

***Canadian Environmental Protection Act, 1999* (CEPA 1999) Regulatory Initiatives (2006-2007)**	
Regulation	**Amendments to the *Off-Road Compression-Ignition Engine Emission Regulations* (*Canada Gazette*, Part I)**
Expected Results	Amendment will establish more stringent "Tier 4" emission standards for the 2008 and later model year diesel engines used in construction, agriculture, mining and forestry equipment. These planned amendments will maintain alignment with the emission standards of the U.S. and will reduce allowable emission levels by up to 95% for particulate matter and up to 86% for NOx and hydrocarbons, depending on the power category.
Measurement Criteria	Smog-forming emissions from new engines covered by the Regulations will be reduced. Achievement of environmental objectives can be assessed by confirming that individual new engines comply with the more stringent emission standards. This can be accomplished by carrying out laboratory emission tests on a sample of new engines representative of those offered for sale in Canada. In the longer term, total emissions from the in-use fleet of engines is expected to be reduced as cleaner new products replace a significant portion of the older, higher emitting vehicles and engines (impacts can be estimated through emissions modelling).
Results Achieved	Development of proposed amendments on-going, planned for publication in *Canada Gazette*, Part I, in Fall 2007.
Regulation	***Marine Spark-Ignition Engine and Off-Road Recreational Vehicle Emission Regulations* (*Canada Gazette*, Part I)**
Expected Results	New regulations to establish in Canada emission standards for 2008 and later model year outboard engines, personal watercraft, snowmobiles, off-road motorcycles and all-terrain vehicles. These regulations will align smog-forming emission standards with those of the U.S. and set stringent emissions limits for NOx, hydrocarbons and carbon monoxide. For example, the allowable levels of HC and CO from snowmobiles will be reduced, on a per vehicle basis, by approximately 50% and 31% respectively, compared to current average emission levels. Similarly, the allowable levels of HC and CO from off-road motorcycles and ATVs will be reduced by up to approximately 96% and 26%, respectively.
Measurement Criteria	Smog-forming emissions from new engines covered by the Regulations will be reduced. Achievement of environmental objectives can be assessed by confirming that individual new vehicles and engines comply with the more stringent emission standards. This can be accomplished by carrying out laboratory emission tests on a sample of new products representative of those offered for sale in Canada. In the longer term, total emissions from the in-use fleet of vehicles and engines is expected to be reduced as cleaner new products replace a significant portion of the older, higher emitting vehicles and engines (impacts can be estimated through emissions modeling).
Results Achieved	Published in *Canada Gazette*, Part I, 2006-12-30, planned for publication in *Canada Gazette*, Part II, in Fall 2007
Regulation	**Amending the *Ozone-depleting Substances (ODS) Regulations, 1998* (*Canada Gazette*, Part I and II)**
Expected Results	The amendments to the Regulations will minimize and control exempted uses of methyl bromide by: strengthening the domestic critical and emergency use processes, optimizing the use and increasing the flexibility of the Regulations; helping Canada implement its Canadian National Management Strategy for the Phase-out of Methyl Bromide Critical Use Exemptions; and by improving tracking by imposing further reporting requirements as required under the Montreal Protocol.
Measurement Criteria	The *Ozone-depleting Substances (ODS) Regulations, 1998* contains a thorough licensing system as well as the requirement to report consumption of ozone-depleting substances to Environment Canada on an annual basis. In turn, Environment Canada reports this information to the Secretariat for the Montreal Protocol. Canada has consistently met its obligations under the Montreal Protocol.
Results Achieved	Published in *Canada Gazette*, Part I, 2006-12-02

Regulation	**Amending the *Vinyl Chloride Release Regulations, 1992* (*Canada Gazette*, Part II)**
Expected Results	Vinyl Chloride is a known carcinogen, harmful to the environment and a danger to human health. The intent of the amended Regulations is to continue to protect the environment and health of Canadians by providing improved clarity to the language of the regulation and incorporated reference method.
Measurement Criteria	Compliance with emission limits and a plan for the control of fugitive emissions
Results Achieved	Published in *Canada Gazette*, Part I, 2004-04-03
Regulation	***Perfluorooctane Sulfonate and its Salts and Certain Other Compounds Regulations* (PFOS) (*Canada Gazette*, Part I)**
Expected Results	Prohibition on manufacture, use, sale, offer for sale and import of PFOS, its salts and its precursors and products or formulations containing PFOS, its salts and its precursors.
Measurement Criteria	As the regulations are finalized (published in *Canada Gazette*, Part II), compliance strategy will be developed. The regulations are not yet in force.
Results Achieved	Published in *Canada Gazette*, Part I, 2006-12-16
Regulation	***Chromium Electroplating, Chromium Anodizing and Reverse Etching Regulations* (*Canada Gazette*, Part II)**
Expected Results	The new Regulations will control air releases of hexavalent chromium from the electroplating sector either by limiting release at a point source or by specifying the conditions of use. Result will be a uniform approach to the control of hexavalent chromium releases from this sector in Canada.
Measurement Criteria	Compliance with the Regulations when promulgated
Results Achieved	Published in *Canada Gazette*, Part I, 2004-11- 06
Regulation	**Regulations Limiting Volatile Organic Compound (VOC) Content in Architectural and Industrial Maintenance (AIM) Coatings (*Canada Gazette*, Part I)**
Expected Results	These new regulations will implement national VOC product content standards for certain categories of products; align with existing requirements in the U.S. to reduce air emissions of VOCs, which are precursor pollutants contributing to the formation of ground-level ozone and particulate matter.
Measurement Criteria	The VOC limits in the regulated products will be verified using standard laboratory tests.
Results Achieved	Multi-stakeholder meetings were held in April 2005, January and September 2006. Planning to publish this new regulation by end of 2007.
Regulation	**Regulations Limiting Volatile Organic Compound (VOC) Content in Consumer Products (*Canada Gazette*, Part I)**
Expected Results	These new regulations will implement national VOC product content standards for certain categories of products; align with existing requirements in the U.S. to reduce air emissions of VOCs, which are precursor pollutants contributing to the formation of ground-level ozone and particulate matter.
Measurement Criteria	The VOC limits in the regulated products will be verified using standard laboratory tests.
Results Achieved	Multi-stakeholder meeting was held in September 2006. Planning to publish this new regulation by end of 2007.
Regulation	**Regulations Limiting Volatile Organic Compound (VOC) Content in Automotive Refinish Coatings (*Canada Gazette*, Part I)**
Expected Results	These new regulations will implement national VOC product content standards for certain categories of products; align with existing requirements in the U.S. to reduce air emissions of VOCs, which are precursor pollutants contributing to the formation of ground-level ozone and particulate matter.
Measurement Criteria	The VOC limits in the regulated products will be verified using standard laboratory tests.
Results Achieved	Multi-stakeholder meetings were held in May and October 2006. Planning to publish this new regulation by end of 2007.
Regulation	**Amending 2-Butoxyethanol Regulations (*Canada Gazette*, Part II)**
Expected Results	Protect the health of Canadians by setting limits for the concentration of 2-butoxyethanol (2-BE) in products designed for indoor use.

Measurement Criteria	Products containing 2-BE are below established limits.
Results Achieved	Published in *Canada Gazette*, Part II, 2006-12-27
Regulation	**Amendments to the *Metal Mining Effluent Regulations* (MMER) Under the *Fisheries Act* (*Canada Gazette*, Part I and II)**
Expected Results	Address some technical matters identified through implementation of the regulations; improve the clarity of interpretation; harmonize some MMER requirements with relevant components of the recently amended *Pulp and Paper Effluent Regulations*; and to designate two fish-bearing waters as tailings impoundment areas.
Measurement Criteria	Regulated facilities are required to submit quarterly and annual reports of monitoring results to Environment Canada. Exceeding the prescribed standards must be reported without delay to enforcement officers. Environment Canada officials prepare and publish an annual status report summarizing the performance of mines with respect to the prescribed effluent standards. This report is provided to the regulated community and stakeholders and is available on Environment Canada's website.
Results Achieved	Published in *Canada Gazette*, Part I, 2006-04-08 Published in *Canada Gazette*, Part II, 2006-10-18
Regulation	**Amendment to the *Prohibition of Certain Toxic Substances Regulations, 2005* (2-Methoxyethanol, Pentachlorobenzene and Tetrachlorobenzenes) (*Canada Gazette*, Part II)**
Expected Results	Restrict the manufacture, use, sale, offer for sale and import of toxic substances 2-methoxyethanol (2-ME), and prohibit the manufacture, use, sale, offer for sale and import of pentachlorobenzene (QCB), and tetrachlorobenzenes (TeCBs) to ensure that the environment and health of Canadians is protected from the potential harmful effects attributed to these toxic substances.
Measurement Criteria	The quantity of 2-ME imported into Canada is reduced. Progress towards virtual elimination of QCB and TeCB is achieved.
Results Achieved	Published in *Canada Gazette*, Part II, 2006-11-29
Regulation	**Amendment to the *Prohibition of Certain Toxic Substances Regulations, 2005*, Fluorotelomer-based Substances (*Canada Gazette*, Part I)**
Expected Results	Prohibit toxic substances (New Fluorotelomer-based Substances) that pose serious risks to Canadians' health or their environments, to ensure the substances are not introduced into the Canadian market.
Measurement Criteria	To maintain the prohibitions under the New Substances provisions of CEPA 1999 published on 2004-06-23.
Results Achieved	Published in *Canada Gazette*, Part I, 2006-06-17
Regulation	**Final Ministerial Order to add hexachlorobutadiene (HCBD) to the Virtual Elimination List (VE) (*Canada Gazette*, Part II)**
Expected Results	This order will establish the Virtual Elimination List, with the addition of this substance (HCBD).
Measurement Criteria	The Virtual Elimination List was established with the addition of HCBD in December of 2006. Regulatory instrument to reduce the release of HCBD into the environment are in place: o Addition of HCBD to the *Prohibition of Certain Toxic Substances Regulation*, 2005 prevents the deliberate manufacture, sale, import or use of HCBD. o Release of HCBD has been reduced as a result of *Solvent Degreasing Regulations* and *Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations* which reduce the release of 2 chlorinated solvents in which HCBD occurs as an incidental contaminant.
Results Achieved	Published in *Canada Gazette*, Part II, 2006-12-13
Regulation	***Polychlorinated Biphenyl (PCB) Regulations* (*Canada Gazette*, Part I)**
Expected Results	Provide a more effective and comprehensive framework for ending the use of PCBs and destroying PCBs in storage. Set specific end of use and destruction dates and establish reporting and monitoring requirements to measure progress. Ensure Canada fulfills its international obligations.

Measurement Criteria	There is a reduction in the total volume of PCBs remaining in use and an increase in the total volume of PCBs destroyed. The total volume of PCBs in storage will also be reduced.
Results Achieved	Published in *Canada Gazette*, Part I, 2006-11-04
Regulation	***Polybrominated Diphenyl Ethers (PBDEs) Regulations* (*Canada Gazette*, Part I)**
Expected Results	Prohibit the manufacture of PBDEs (tetraBDE, pentaBDE, hexaBDE, heptaBDE, octaBDE, nonaBDE and decaBDE). Prohibit the use, sale, offer for sale and import of tetraBDE, pentaBDE, hexaBDE, and mixtures, polymers and resins containing these substances and will prohibit the manufacture of these mixtures, polymers and resins.
Measurement Criteria	Progress towards virtual elimination of tetraBDE, pentaBDE and hexaBDE is achieved.
Results Achieved	Published in the *Canadian Gazette*, Part I, 2006-12-16
Regulation	***Federal Petroleum Products and Allied Petroleum Products Storage Tank Systems Regulations* (*Canada Gazette*, Part I)**
Expected Results	Provide a more comprehensive framework in order to effectively prevent soil and groundwater contamination from storage tank systems of the Federal House and on Aboriginal lands.
Measurement Criteria	There is an increase in the percentage of storage tank systems meeting the technical requirements of the regulations. There is a decrease in the number of spills reported and a decrease in the total volume of product spilled.
Results Achieved	Published in *Canada Gazette*, Part I, 2007-04-07.
Regulation	**Amendments to the *Environmental Emergency Regulations* (*Canada Gazette*, Part I)**
Expected Results	Amending the regulations to add 34 substances and associated thresholds quantities to the current list of 174 substances which require facilities to develop and implement environmental emergency plans that address prevention, preparedness, response, and recovery. Amendments will also clarify requirements for propane, ammonia, and annual testing, and eliminate potential duplication with the *Transportation of Dangerous Goods Act*.
Measurement Criteria	Regulated facilities are required to submit notices through our online reporting database, within the mandated timelines, to Environment Canada if they exceed the prescribed thresholds for the published substances and prepare an environmental emergency (E2) plan. The E2 plans are to be tested and updated yearly. The amendments would bring an increase in the number of facilities that must prepare E2 plans, resulting in decreased risks, both in terms of frequency and severity of incidents, hence enhanced safety for the general public. Facilities non-compliant with the Regulations will be referred to enforcement officers.
Results Achieved	Published in *Canada Gazette*, Part I, 2007-06-09.
Regulation	**Amendments to the *Pulp and Paper Effluent Regulations* under the *Fisheries Act* (*Canada Gazette*, Part I)**
Expected Results	Develop amendments to the Environmental Effects Monitoring (EEM) program to further target monitoring efforts and resources where they are needed most. Amendments would incorporate opportunities for program improvements identified through departmental implementation experience and a recent multi-stakeholder smart regulation project on EEM.
Measurement Criteria	There is compliance with regulations.
Results Achieved	Completed public consultations on proposed amendments to the PPER in September 2006. Ongoing preparation for publication in *Canada Gazette*, Part I
Biodiversity Conservation Regulatory Initiatives	
Regulation	**Amendments to Schedule 1 of the *Species at Risk Act* (SARA) (*Canada Gazette*, Part I and II)**
Expected Results	Amend Schedule 1 to modify the legal list of species which immediately provides the protection provisions prescribed under the Act and other provisions as needed.
Measurement Criteria	Amendment was completed within prescribed timelines
Results Achieved	Published in *Canada Gazette*, Part II, 2006-09-06
Regulation	**Amendments to the *Migratory Birds Regulations and Wildlife Area Regulations***

	(*Canada Gazette*, Part I and II)
Expected Results	Update the definition of non-toxic shot to include tungsten-iron-nickel-copper as an approved non-toxic shot alternative for hunting migratory game birds.
Measurement Criteria	Amendment is completed
Results Achieved	Published in *Canada Gazette*, Part I, 2006-12-09
Regulation	**Annual hunting regulations, under the *Migratory Birds Convention Act* (MBCA) (*Canada Gazette*, Part II)**
Expected Results	To establish hunting season dates and bag and possession limits for migratory game birds at sustainable levels using the best available science.
Measurement Criteria	
Results Achieved	Published in *Canada Gazette*, Part II, 2006-04-05
Regulation	***Overabundant Snow Geese, under the Migratory Birds Convention Act*, to establish a special conservation season (MBCA), (*Canada Gazette*, Part I and II)**
Expected Results	Maintain a spring hunting season for snow geese as a population control measure, where needed.
Measurement Criteria	
Results Achieved	Published in *Canada Gazette*, Part II, 2006-04-05
Regulation	**Amendment to the *Wildlife Area Regulations* under the *Canada Wildlife Act* (*Canada Gazette*, Part I)**
Expected Results	Amendment to maintain and establish protected areas for the conservation of habitat and wildlife. Establish two new National Wildlife Areas, Igaliqtuug and Cape Searle and Reid Bay.
Measurement Criteria	
Results Achieved	Ongoing
Regulation	**Amendments to the *Wildlife Animal and Plant Trade Regulations* under the *Wild Animal and Plant Protection* and *Regulation of International and Interprovincial Trade Act* (WAPPRIITA) (*Canada Gazette*, Part I)**
Expected Results	Establish provisions for pre-Convention and exemption regulations for certain specimens as authorized under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
Measurement Criteria	
Results Achieved	Ongoing

Table 8: Details on Project Spending

In 2006-2007, Environment Canada managed the following projects that exceeded their delegated project approval level:

- Weather station construction Eureka, N.W.T.
- Hydrometric Program
- Canadian Meteorological Centre - Facility Extension
- Supercomputer Facility Upgrade to Electrical and Cooling Capacity
- Modernization of the Climate Observing Program
- UPS Replacement - Dorval Facility

Additional information on Environment Canada's projects can be found at: http://www.tbs-sct.gc.ca/rma/dpr3/06-07/index_e.asp.

Table 9: Details on Transfer Payment Programs (TPPs)

In 2006-2007, Environment Canada managed the following transfer payment programs in excess of $5 million:

- Contributions to support environmental and sustainable development initiatives
- Habitat Stewardship Contribution Program
- Contribution to EcoAction - Community Funding Initiative

Additional information on Environment Canada's transfer payment programs can be found at: http://www.tbs-sct.gc.ca/rma/dpr3/06-07/index_e.asp.

Table 10: Conditional Grants (Foundations)

Environment Canada has provided conditional grants to the independent foundations identified below:

- Sustainable Development Technology Canada (SDTC)
- The Federation of Canadian Municipalities (FCM) Green Municipal Funds (GMF)
- Clayoquot Biosphere Trust (CBT)
- Canadian Foundation for Climate and Atmospheric Sciences (CFCAS)

Additional information on Environment Canada's conditional grants to independent foundations can be found at: http://www.tbs-sct.gc.ca/rma/dpr3/06-07/index_e.asp.

Table 11: Financial Statements

Statement of Management Responsibility

Responsibility for the integrity and objectivity of the accompanying financial statements for the year ended March 31, 2007 and all information contained in these statements rests with departmental management. These financial statements have been prepared by management in accordance with Treasury Board accounting policies which are consistent with Canadian generally accepted accounting principles for the public sector.

Management is responsible for the integrity and objectivity of the information in these financial statements. Some of the information in the financial statements is based on management's best estimates and judgment and gives due consideration to materiality. To fulfill its accounting and reporting responsibilities, management maintains a set of accounts that provides a centralized record of the department's financial transactions. Financial information submitted to the *Public Accounts of Canada* and included in the department's *Departmental Performance Report* is consistent with these financial statements.

Management maintains a system of financial management and internal control designed to provide reasonable assurance that financial information is reliable, that assets are safeguarded and that transactions are in accordance with the *Financial Administration Act*, are executed in accordance with prescribed regulations, within Parliamentary authorities, and are properly recorded to maintain accountability of Government funds. Management also seeks to ensure the objectivity and integrity of data in its financial statements by careful selection, training and development of qualified staff, by organizational arrangements that provide appropriate divisions of responsibility, and by communication programs aimed at ensuring that regulations, policies, standards and managerial authorities are understood throughout the department.

The financial statements of the department have not been audited.

Michael Horgan, Deputy Minister

0 3 AOUT 2007

Basia Ruta, ADM, Finance & Corporate,
Chief Financial Officer

Gatineau, Canada
August 15, 2007

Environment Canada
Statement of Operations *(Unaudited)*
For the Year Ended March 31

Expenses (Note 4)	2007	2006
Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced	322,239,498	224,138,992
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	224,456,742	-
Improved knowledge and information on weather and environmental conditions influences decision-making	200,889,758	247,365,000
Biodiversity is conserved and protected	191,808,469	150,029,578
Water is clean, safe and secure	114,538,605	87,664,062
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscape	89,319,219	-
Canadians adopt sustainable consumption and production approaches	38,909,456	72,231,493
Net emissions of greenhouse gases are reduced	37,461,802	82,563,630
Canadians understand the impacts of climate change and adapt to its effects	5,368,089	100,032,079
Improved Air Quality	-	103,865,220
Total Expenses	**1,224,991,638**	**1,067,890,054**
Revenues (Note 5)		
Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced	5,678,825	10,014,630
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	45,220,514	-
Improved knowledge and information on weather and environmental conditions influences decision-making	17,804,665	63,526,631
Biodiversity is conserved and protected	5,113,568	5,373,730
Water is clean, safe and secure	4,236,793	4,716,044
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscape	255,175	-
Canadians adopt sustainable consumption and production approaches	57,907	1,332,617
Net emissions of greenhouse gases are reduced	29,330	243,298
Canadians understand the impacts of climate change and adapt to its effects	133,553	2,380,654
Improved Air Quality	-	1,369,112
Total Revenues	**78,530,330**	**88,956,716**
Net Cost of Operations	**1,146,461,308**	**978,933,338**

The accompanying notes form an integral part of these financial statements

Environment Canada
Statement of Financial Position *(Unaudited)*
At March 31

	2007	2006
ASSETS		
Financial assets		
Accounts receivable and advances (Note 6)	14,979,585	7,561,323
Total financial assets	**14,979,585**	**7,561,323**
Non-financial assets		
Prepaid expenses	1,556,068	1,841,278
Inventory	2,640,884	3,486,850
Tangible capital assets (note 7)	338,322,332	335,513,930
Total non-financial assets	**342,519,284**	**340,842,058**
TOTAL	**357,498,869**	**348,403,381**
LIABILITIES		
Accounts payable and accrued liabilities	367,528,561	136,317,214
Vacation pay & compensatory leave	31,096,975	31,833,460
Deferred revenue (Note 8)	57,681	44,611
Lease obligation for tangible capital assets (Note 9)	15,368,902	15,780,415
Environmental liabilities (Note 11)	63,266,228	83,837,800
Employee severance benefits (Note 10)	110,801,226	100,722,879
Other liabilities	7,420,106	7,332,785
	595,539,679	**375,869,164**
Equity of Canada	(238,040,810)	(27,465,783)
TOTAL	**357,498,869**	**348,403,381**

Contingent Liabilities (Note 11)
Contractual Obligations (Note 12)

The accompanying notes form an integral part of these financial statements

Environment Canada
Statement of Equity of Canada *(Unaudited)*
For the Year Ended March 31

	2007	2006
Equity of Canada, beginning of year	(27,465,783)	(260,143,381)
Net cost of operations	(1,146,461,308)	(978,933,338)
Current year appropriations used (Note 3)	868,438,867	1,041,546,538
Revenue not available for spending	(13,644,670)	(17,820,029)
Change in net position in the Consolidated Revenue Fund (Note 3)	(180,462)	112,394,858
Services provided without charge by other government departments (Note 13)	81,272,546	75,489,569
Equity of Canada, end of year	**(238,040,810)**	**(27,465,783)**

The accompanying notes form an integral part of these financial statements

Environment Canada
Statement of Cash Flow *(Unaudited)*
For the Year Ended March 31

	2007	2006
Operating activities		
Net cost of operations	1,146,461,308	978,933,338
Non-cash items:		
Services provided without charge	(81,272,546)	(75,489,569)
Amortization of tangible capital assets	(34,997,054)	(35,340,897)
Loss on disposal and write-down of tangible capital assets	(2,685,064)	(10,720,943)
Found assets credited to Revenue	671,414	4,400,939
Other non-cash items	46,699	728,238
Variations in Statement of Financial Position:		
Increase (decrease) in financial assets	6,287,086	(2,932,028)
Decrease (increase) in liabilities	(219,670,413)	243,100,609
Cash used by operating activities	**814,841,430**	**1,102,679,687**
Capital investment activities		
Acquisitions of tangible capital assets	37,871,420	31,715,817
Salary costs transferred to Work in Progress accounts	2,348,633	1,632,991
Acquisition of tangible capital assets with Specified Purpose Accounts	73,909	432,073
Proceeds from disposal of tangible capital assets	(521,658)	(339,201)
Cash used by capital investment activities	**39,772,304**	**33,441,680**
Financing activities		
Net cash provided by Government of Canada	(854,613,734)	(1,136,121,367)

The accompanying notes form an integral part of these financial statements

Environment Canada
Notes to the Financial Statements *(Unaudited)*

1. Authority and Objectives

Environment Canada (EC) was established under legislation by the *Department of the Environment Act*. Under this *Act*, the powers, duties and functions of the Minister of the Environment extend to and include matters relating to:

- The preservation and enhancement of the quality of the natural environment (including water, air and soil quality);
- Renewable resources, including migratory birds and other non-domestic flora and fauna;
- Water;
- Meteorology;
- Enforcement of any rules or regulations made by the International Joint Commission relating to boundary waters; and
- Coordination of the policies and programs of the Government of Canada respecting the preservation and enhancement of the quality of the natural environment.

Environment Canada delivers its mandate through the following 9 programs:

- Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced
- Canadians are informed of, and respond appropriately to, current and predicted environmental conditions
- Improved knowledge and information on weather and environmental conditions influences decision-making
- Biodiversity is conserved and protected
- Water is clean, safe and secure
- Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscape
- Canadians adopt sustainable consumption and production approaches
- Net emissions of greenhouse gases are reduced
- Canadians understand the impacts of climate change and adapt to its effects

In addition, Environment Canada has authority under a number of pieces of legislation which affect how the department operates. The most significant *Acts* are as follows:

- *Antarctic Environmental Protection Act*
- *Canada Water Act*
- *Canada Wildlife Act*
- *Canadian Environment Week Act*
- *Canadian Environmental Assessment Act*
- *Canadian Environmental Protection Act, 1999*
- *Department of the Environment Act*
- *Fisheries Act* (Sections 36-42)
- *International River Improvements Act*

- *Migratory Birds Convention Act, 1994*
- *National Wildlife Week Act*
- *Species at Risk Act*
- *Weather Modification Information Act*
- *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act*

2. Summary of Significant Accounting Policies

The financial statements have been prepared in accordance with Treasury Board accounting policies which are consistent with Canadian generally accepted accounting principles for the public sector.

Significant accounting policies are as follows:

(a) Parliamentary appropriations – the Department is financed by the Government of Canada through Parliamentary appropriations. Appropriations provided to the department do not parallel financial reporting according to generally accepted accounting principles since appropriations are primarily based on cash flow requirements. Consequently, items recognized in the statement of operations and the Statement of financial position are not necessarily the same as those provided through appropriations from Parliament. Note 3 provides a high-level reconciliation between the bases of reporting.

(b) Net Cash Provided by Government – The department operates within the Consolidated Revenue Fund (CRF). The CRF is administered by the Receiver General for Canada. All cash received by the department is deposited to the CRF and all cash disbursements made by the department are paid from the CRF. Net cash provided by Government is the difference between all cash receipts and all cash disbursements including transactions between departments of the federal government.

(c) Revenues – Revenues are accounted for in the period in which the underlying transaction or event occurred that gave rise to the revenues. Revenues that have been received but not yet earned are presented as deferred revenues (note 8).

(d) Change in net position in the Consolidate Revenue Fund is the difference between the net cash provided by Government and appropriations used in a year, excluding the amount of non respendable revenue recorded by the department. It results from timing difference between when a transaction affects appropriations and when it is processed through the CRF.

(e) Expenses – Expenses are recorded on the accrual basis:

- Grants are recognized in the year in which payment is due or in which the recipient has met the eligibility criteria. In the case of grants which do not form part of an existing program, the expense is recognized when the Government announces a decision to make a non-recurring transfer, provided the enabling legislation or authorization for payment receives parliamentary approval prior to the completion of the financial statements;

- Contributions are recognized in the year in which the recipient has met the eligibility criteria or fulfilled the terms of a contractual transfer agreement;

- Vacation pay and compensatory leave are expensed as the benefits accrue to employees under their respective terms of employment.

- Services provided without charge by other government departments for accommodation, the employer's contribution to the health and dental insurance plans and legal services are recorded as operating expenses at their estimated cost.

(f) Employee future benefits

(i) Pension benefits: Eligible employees participate in the Public Service Pension Plan, a multiemployer administered by the Government of Canada. The department's contributions to the Plan are charged to expenses in the year incurred and represent the total departmental obligation to the Plan. Current legislation does not require the department to make contributions for any actuarial deficiencies of the Plan.

(ii) Severance benefits: Employees are entitled to severance benefits under labour contracts or conditions of employment. These benefits are accrued as employees render the services necessary to earn them. The obligation relating to the benefits earned by employees is calculated using information derived from the results of the actuarially determined liability for employee severance benefits for the Government as a whole.

(g) Accounts and loans receivables are stated at amounts expected to be ultimately realized; a provision is made for receivables where recovery is considered uncertain.

(h) Contingent liabilities – Contingent liabilities are potential liabilities which may become actual liabilities when one or more future events occur or fail to occur. To the extent that the future event is likely to occur of fail to occur, and a reasonable estimate of the loss can be made, an estimated liability is accrued and an expense recorded. If the likelihood is not determinable or an amount cannot be reasonably estimated, the contingency is disclosed in the notes to the financial statements.

(i) Environmental liabilities – Environmental liabilities reflect the estimated costs related to the management and remediation of environmentally contaminated sites. Based on management's best estimates, a liability is accrued and an expense recorded when the contamination occurs or when the department becomes aware of the contamination and is obligated, or is likely to be obligated to incur such costs. If the likelihood of the department's obligation to incur these costs is either not determinable or unlikely, or if an amount cannot be reasonably estimated, the costs are disclosed as contingent liabilities in the notes to the financial statements.

(j) Inventory – Inventory consist of parts, material and supplies held for future program delivery and not intended for re-sale. They are valued at cost. If they no longer have service potential, they are valued at the lower of cost or net realizable value.

(k) Tangible capital assets – All tangible capital assets and leasehold improvements having an initial cost of $10,000 or more are recorded at their acquisition cost. The department does not capitalize intangibles, works of art and historical treasures that have cultural, aesthetic or historical value, assets located on Indian Reserves and museum collections.

Capital assets are amortized on a straight-line basis over the estimated useful life of the asset as follows:

Asset Class	Amortization (Years)
Buildings	Maximum 25
Works and Infrastructure	20 to 40
Machinery and Equipment	1 to 15
Vehicles	3 to 25
Leasehold Improvements	Term of Lease
Assets under construction	Once in service, in accordance with asset type
Leased tangible capital assets	In accordance with asset type

Environment Canada
Notes to the Financial Statements *(Unaudited)*

(l) Measurement uncertainty – The preparation of these financial statements in accordance with accounting Treasury Board accounting policies which are consistent with Canadian generally accepted accounting principles for the public sector requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses reported in the financial statements. At the time of preparation of these statements, management believes the estimates and assumptions to be reasonable. The most significant items where estimates are used are contingent liabilities, environmental liabilities, the liability for employee severance benefits and the useful life of tangible capital assets. Actual results could differ from those estimated. Management's estimates are reviewed periodically and, as adjustments become necessary, they are recorded in the financial statements in the year they become known.

3. Parliamentary Appropriations

The Department receives most of its funding through annual Parliamentary appropriations. Items recognized in the statement of operations and the statement of financial position in one year may be funded through Parliamentary appropriations in prior, current or future years. Accordingly, the Department has different net results of operations for the year on a government funding basis than on an accrual accounting basis. The differences between net results of operations and appropriations are reconciled in the following tables.

(a) Reconciliation of net cost of operations to current year appropriations used:

	2007	2006
Net cost of operations	1,146,461,308	978,933,338
Adjustments for items affecting net cost of operations but not affecting appropriations:		
Add (Less):		
Amortization of tangible capital assets	(34,997,054)	(35,340,897)
Project deposits - Environment	(3,124,968)	(4,250,385)
Prepaid expenses previously charged to appropriation	(287,132)	(128,492)
Vacation pay and compensatory leave	686,515	(3,798,982)
Other	(518,591)	(9,182,036)
Environmental Damage Fund	(320,458)	(249,141)
Bad debt expense	(119,038)	(147,537)
Foreign exchange losses	(26,946)	(34,171)
Expenses not being charged to Appropriations at the same time	(225,000,000)	150,000,000
Expenses for claims pending litigation	2,175,000	-
Adjustments for prior years PAYE	4,930,551	1,769,011
Refund of previous year's expenses	2,694,558	1,242,308
Revenues not available for spending	13,644,670	17,820,029
Inventory	(845,965)	(399,010)
Expenses related to Environmental Liabilities	20,571,572	8,914,881
Services received without charge	(81,272,546)	(75,489,569)
Employee Severance Benefits	(10,078,347)	(15,817,817)
Justice Canada fees	(4,417,195)	(4,031,574)
	830,155,934	**1,009,809,956**
Adjustments for items not affecting net cost of operations but affecting appropriations		
Add (Less): Acquisition of tangible capital assets	37,871,420	31,715,817
Capital lease payments	411,513	20,765
Current year appropriations used	**868,438,867**	**1,041,546,538**

Environment Canada
Notes to the Financial Statements *(Unaudited)*

(b) Appropriations provided and used

	Appropriations Provided	
	2007	**2006**
Vote 1 - Operating expenditures	716,182,561	748,334,367
Vote 5 - Capital expenditures	40,000,001	33,822,100
Vote 10 - Grants & Contributions	49,719,502	69,250,340
Statutory amounts	82,406,977	234,455,327
	888,309,041	1,085,862,134
Less:		
Appropriations available for future years	(284,065)	(321,064)
Lapsed appropriations	(19,586,109)	(43,994,532)
	(19,870,174)	(44,315,596)
Total appropriations used	**868,438,867**	**1,041,546,538**

(c) Reconciliation of net cash provided by Government to current year appropriations used

	2007	**2006**
Net Cash provided by Government	854,613,734	1,136,121,367
Revenues not available for spending:	13,644,671	17,820,029
	868,258,405	1,153,941,396
Change in net position in the Consolidated Revenue Fund		
Variation in accounts receivable and advances	(7,517,714)	2,399,006
Variation in accounts payable and accrued liabilities	8,486,738	(103,832,355)
Variation in deferred revenue	13,070	40,500
Other adjustments	(801,632)	(11,002,010)
Change in net position in the Consolidated Revenue Fund	180,462	(112,394,858)
Current year appropriations used	**868,438,867**	**1,041,546,538**

4. Expenses

	2007	2006
Operations and administration		
Salaries and employee benefits	615,278,953	600,789,653
Professional and special services	82,703,435	92,970,773
Accommodation	42,681,107	41,400,094
Travel	41,889,706	44,715,033
Amortization	34,997,054	35,340,897
Other contracted services	32,361,075	37,538,678
Rentals	26,167,708	31,176,215
Machinery & equipment	25,345,694	39,876,531
Materials and supplies	25,266,374	26,470,187
Telecommunications	16,534,497	15,592,954
Equipment repair and maintenance	14,909,048	13,451,732
Information services - communications	7,052,768	6,674,059
Postage	3,133,364	3,696,858
Loss on write-down	2,378,257	4,362,708
Loss on disposal of capital assets	488,966	6,452,319
Other	300,758	8,565,982
Environmental liabilities	(20,571,572)	(8,914,881)
Sub-total Operations and administration	**950,917,192**	**1,000,159,792**
Transfer payments		
Non-profit organizations	261,718,475	47,720,666
Other countries and international organizations	6,539,067	11,803,093
Other to individuals	3,359,694	3,652,184
Other levels of governments within Canada	2,020,186	1,895,319
Industry	437,024	2,659,000
Sub-total transfer payments	**274,074,446**	**67,730,262**
Total Expenses	**1,224,991,638**	**1,067,890,054**

5. Revenues

	2007	2006
Sales of goods and services		
Sales of goods and information products	43,684,311	43,806,172
Services of a non-regulatory nature	18,743,797	25,027,367
Services of a regulatory nature	5,849,109	5,733,486
Lease and use of public property	1,251,878	1,238,084
Rights and privileges	659,362	683,328
Other	16,497	11,214
Sub-total sales	70,204,954	76,499,651
Joint projects and cost sharing agreements	3,142,747	4,681,754
Other	3,111,523	2,542,327
Environmental damages fund	903,314	355,632
Found assets credited to revenue	671,414	4,400,939
Gain on disposal of assets	370,104	237,393
Gain on foreign exchange	64,926	103,572
Interests and penalties	44,581	75,059
Fines	16,767	60,389
Sub-total	8,325,376	12,457,065
Total revenues	78,530,330	88,956,716

6. Accounts Receivable and advances

	2007	2006
External Parties	4,075,919	3,476,635
Other Government Departments	11,180,556	4,261,948
	15,256,475	7,738,583
Less: allowance for doubtful accounts on external receivables	(443,435)	(343,983)
Net accounts receivables	14,813,040	7,394,600
Advances to employees	166,545	166,723
Total	14,979,585	7,561,323

7. Tangible Capital Assets

Cost					Accumulated amortization					
Capital asset class	Opening balance	Acquisitions	Disposals and write-offs	Closing balance	Opening balance	Amortization	Disposals and write-offs	Closing balance	2007 Net book value	2006 Net book value
Land	25,242,821	1,600	-	25,244,421	-	-	-	-	25,244,421	25,242,821
Buildings	148,335,424	1,671,180	201,400	149,805,204	72,810,216	5,642,526	112,301	78,340,441	71,464,763	75,525,208
Works and infrastructure	3,720,359	-	-	3,720,359	1,672,385	148,202	-	1,820,587	1,899,772	2,047,974
Machinery and equipment	398,965,807	24,237,289	5,451,456	417,751,640	273,004,169	24,061,134	5,270,346	291,794,958	125,956,682	125,961,637
Vehicles	34,702,805	4,129,132	2,443,443	36,388,494	22,570,556	3,001,358	1,862,801	23,709,112	12,679,381	12,132,249
Leasehold improvements	34,991,977	-	-	34,991,977	17,596,343	1,415,858	-	19,012,201	15,979,776	17,395,634
Assets under construction	61,920,912	16,676,148	8,059,042	70,538,018	-	-	-	-	70,538,018	61,920,912
Capital lease for office and laboratory space	18,198,560	-	-	18,198,560	2,911,065	727,976	-	3,639,041	14,559,519	15,287,495
Total	**726,078,665**	**46,715,349**	**16,155,341**	**756,638,673**	**390,564,734**	**34,997,054**	**7,245,448**	**418,316,340**	**338,322,332**	**335,513,930**

Amortization expense for the year ended March 31, 2007 is $34,997,054 (2006: $35,340,897).

8. Deferred Revenue

Deferred revenue represents the balance at year-end of unearned revenue stemming from donations, which are restricted to fund studies related to endangered species. Revenue is recognized each year in the amount of the total cost incurred. Details of the transactions related to this account are as follows:

	2007	2006
Opening balance	44,611	4,111
Donations received	13,070	40,500
Revenue recognized	-	-
Closing balance	**57,681**	**44,611**

9. Lease obligation for tangible capital assets

On October 13, 2000, the department has entered into an agreement to rent office and laboratory space from Carleton University, for the National Wildlife Research Centre (NWRC), under capital lease, with a cost of $18,198,560 and accumulated amortization of $3,639,041 as at March 31, 2007 ($18,198,560 and $2,911,065 respectively as at March 31, 2006)

The obligation for the upcoming years includes the following:

Maturing year	2007	2006
2008	1,300,000	1,300,000
2009	1,300,000	1,300,000
2010	1,300,000	1,300,000
2011	1,300,000	1,300,000
2012 and thereafter	20,800,000	22,100,000
Total future minimum lease payments	26,000,000	27,300,000
Less: imputed interest (5.63%)	10,631,098	11,519,585
Balance of obligation under leased tangible capital assets	**15,368,902**	**15,780,415**

10. Employee Benefits

(a) Pension benefits: The department's employees participate in the Public Service Pension Plan, which is sponsored and administered by the Government of Canada. Pension benefits accrue up to a maximum period of 35 years at a rate of 2 percent per year of pensionable service, times the average of the best five consecutive years of earnings. The benefits are integrated with Canada/Québec Pension Plans benefits and they are indexed to inflation.

Both the employees and the department contribute to the cost of the Plan. The 2006-2007 expense amounts to $59,920,597 ($61,912,269 in 2005-2006) which represents approximately 2.2 times the contributions by employees (2.6 times in 2005-2006).

The department's responsibility with regard to the Plan is limited to its contributions. Actuarial surpluses or deficiencies are recognized in the financial statements of the Government of Canada, as the Plan's sponsor.

(b) Severance benefits: The department provides severance benefits to its employees based on eligibility, years of service and final salary. These severance benefits are not pre-funded. Benefits will be paid from future appropriations. Information about the severance benefits, measured as at March 31, is as follows:

	2007	2006
Accrued benefit obligation, beginning of year	100,722,879	84,905,062
Expense for the year	17,543,411	24,441,850
Benefits paid during the year	(7,465,064)	(8,624,033)
Accrued benefit obligation, end of year	**110,801,226**	**100,722,879**

11. Contingent liabilities

(a) Contaminated sites

Liabilities are accrued to record the estimated costs related to the management and remediation of contaminated sites where the department is obligated or likely to be obligated to incur such costs. The department has identified 54 sites (40 in 2006) where such action is possible and for which a liability of $63,226,228 ($83,837,800 in 2006) has been recorded. The department has estimated additional clean-up costs of $96,266,228 ($134,696,989 in 2006) that are not accrued, as these are not considered likely to be incurred at this time. The department's ongoing efforts to assess contaminated sites may result in additional environmental liabilities related to newly identified sites, or changes in the assessments or intended use of existing sites. These liabilities will be accrued by the department in the year in which they become known.

(b) Claims and litigation

Claims have been made against the department in the normal course of operations. Legal proceedings for claims totaling approximately $25,000 ($2,200,000 in 2006) were still pending at March 31, 2007. Some of these potential liabilities may become actual liabilities when one or more future events occur or fail to occur. To the extent that the future events is likely to occur or fail to occur, and a reasonable estimate of the loss can be made, an estimated liability is accrued and an expense recorded in the financial statements.

12. Contractual Obligations

The nature of the department's activities can result in some large multi-year contracts and obligations whereby the department will be obligated to make future payments when the services/goods are received. Significant contractual obligations that can be reasonably estimated are summarized as follows:

	2008	2009	2010	2011	2012	Thereafter	Total
Operating leases	7,900,000	7,900,000	7,900,000	7,900,000	7,900,000	237,000,000	276,500,000
Other	7,930,925	7,930,925	3,341,652	-	-	-	19,203,502
Total	**15,830,925**	**15,830,925**	**11,241,652**	**7,900,000**	**7,900,000**	**237,000,000**	**295,703,502**

13. Related party transactions

The department is related as a result of common ownership to all Government of Canada departments, agencies, and Crown corporations. The Government has structured some of its administrative activities for efficiency and cost-effectiveness purposes so that one department performs these on behalf of all without charge. The costs of these services, which include payroll and cheque issuance services provided by Public Works and Government Services Canada and audit services provided by the Office of the Auditor General are not included as an expense in the department's Statement of Operations. There are other types of services that are not considered to be in the normal course of operation because they are not consistently provided without charge to all departments. These services include: accommodation, certain employee benefits, workers' compensation cost and legal services. The costs of these services have been included as an expense in the department's Statement of Operations in the following amounts:

(a) Services provided without charge:

	2007	2006
Employer's contribution to the health and dental insurance plans	38,283,629	36,080,958
Accommodation	37,479,902	36,231,374
Legal services	4,160,389	1,640,289
Workers' compensation cost	1,348,626	1,536,948
Total	**81,272,546**	**75,489,569**

(b) Payables and receivables outstanding at year-end with related parties:

	2007	2006
Accounts receivable from other government departments and agencies	7,582,038	423,604
Accounts payable to other government departments and agencies	17,424,138	14,513,117

14. Comparative information

Comparative figures have been reclassified to conform to the current year's presentation.

Table 12: Response to Audits and Evaluations

Environment Canada has been tracking progress against recommendations made by the Commissioner of the Environment and Sustainable Development (CESD) and the Office of the Auditor General (OAG) and reporting the results to the OAG and CESD since 2002. Internal audit recommendations as well as those stemming from evaluations were tracked through follow-up work carried out on a two-year cycle.

In 2005, in order to increase the frequency of monitoring progress against all recommendations and in anticipation of certain requirements, a new and comprehensive approach to tracking Environment Canada's responses to recommendations was put in place. Under this approach, both internally generated as well as externally developed recommendations are tracked. Reports on the state of progress against commitments made in response to recommendations are made to the Departmental Audit and Evaluation Committee semi-annually. This provides senior management with timely information to assist in determining how well the Department is addressing and resolving risks or deficiencies and to act on identified opportunities. Environment Canada's audits, evaluations and their recommendations and management responses may be found at the Audit and Evaluation Report website.[28]

Audits conducted by the OAG or the CESD may be found at the OAG website.[29]

Evaluations completed and approved in 2006-2007

Co-locating of Science Research Centres on University Campuses	Approved in May 2006
Departmental Climate Change: One Tonne Challenge (OTC)	Approved in July 2006
Departmental Climate Change: Pilot Emission Removal Reductions (PERRL)	Approved in July 2006
Departmental Climate Change: Opportunities Envelope	Approved in July 2006
Federal Species at Risk Programs	Approved in July 2006
Intellectual Property Management	Approved in July 2006
Bilateral Cooperation Program under the Multilateral Fund of the Montreal Protocol	Approved in March 2007
Building Public Confidence in Pesticide Regulation and Improving Access to Pest Management Products (interdepartmental, led by Health Canada)	Approved in March 2007

Internal Audits completed and approved in 2006-2007

Climate Change: Eleventh Session of the Conference of the Parties (CoP 11)	Approved in July 2006
Continual Auditing: Acquisition Cards	Approved in July 2006
Continual Auditing: Compensation	Approved in October 2006
Environment Canada's Bilateral Cooperation Program for Implementation of the Montreal Protocol	Approved in March 2007

Upcoming Internal Audits and Evaluations (Next three fiscal years)
The Departmental Audit and Evaluation Plan for 2007-2008 to 2009-2010 may be found at Environment Canada's Audit and Evaluation website.[30]

[28] Audit and Evaluation Reports: http://www.ec.gc.ca/ae-ve/Default.asp?lang=En&n=3036EE9A-1
[29] Office of the Auditor General of Canada: http://www.oag-bvg.gc.ca/
[30] Audit and Evaluation: http://www.ec.gc.ca/ae-ve/default.asp?lang=En&n=076E7B9B-1

Table 13: Sustainable Development Strategy

Environment Canada's Sustainable Development Strategy (SDS) 2004-2006 highlighted for Canadians key commitments that the Department completed over the three-year period of the SDS to further our sustainable development objectives.

Sustainable Development Strategy 2004-2006 focuses on four themes that enhance Environment Canada's capacity for integrated decision making and that strengthen the sustainability of departmental operations:

- Information for Decision Making
- Innovative Instruments
- Partnerships for Sustainable Development
- Managing for Sustainable Development

The final report on progress for SDS 2004-2006 has been compiled and outlines results achieved during the period from April 1, 2004 to March 31, 2007. This information is intended to provide parliamentarians and Canadians with an accounting of results achieved and progress made over the course of the three years of the Department's Sustainable Development strategy implementation.

At the same time, performance reporting on SDS 2004-2006 informed the renewal of the Department's SDS which was tabled in Parliament in December 2006. The Department's fourth SDS, for the time period 2007-2009, will build on results achieved under the current Strategy, strengthen results-based performance measurement and reporting, and support the coordinated federal approach to the fourth round of sustainable development strategies. This is a government-wide initiative coordinated by Environment Canada in the spring of 2006 that resulted in a set of federal sustainable development goals and a common reporting framework for departmental sustainable development strategies. More information regarding the federal Sustainable Development Goals can be viewed on the Sustainable Development Information System website.[31]

The Sustainable Development Strategy 2004-2006 and performance information for the entire reporting period may be viewed at the Sustainable Development Strategy website.[32]

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[31] Sustainable Development Information System: http://www.sdinfo.gc.ca

[32] Sustainable Development Strategy 2004-2006: http://www.ec.gc.ca/sd-dd_consult/SDS2004/index_e.cfm

Table 14: Service Improvement

Environment Canada continues to provide timely weather and environmental services and information to Canadians in a wide range of formats. This information includes historical data, current conditions, and immediate warnings of hazardous situations and forecast of future conditions in a range of hours to decades. Environment Canada is constantly improving its services via consultation with users, and learning from others to meet the needs of users.

Client satisfaction measurement and progress toward achieving satisfaction targets:
In a survey questionnaire conducted in 2007, 84% of Canadians who cite Environment Canada as the principle producer of weather information are satisfied or very satisfied with the accuracy of weather information and services provided. The survey results are as follows:

Environment Canada Weather Services	Awareness of Service			Awareness and Usage of Service		
	1997	2002	2007	1997	2002	2007
WEATHERRADIO	22%	23%	23%	10%	8%	34%
Weatheroffice	28%	49%	52%	7%	31%	60%
Recorded Weather Forecast Messages	50%	50%	50%	27%	25%	48%
Weather One-on-One	14%	15%	12%	1%	2%	13%

Environment Canada Weather Services	Level of Satisfaction									
	Very Satisfied		Satisfied		Neutral		Dissatisfied		Very Dissatisfied	
	2002	2007	2002	2007	2002	2007	2002	2007	2002	2007
WEATHERRADIO	37%	38%	30%	40%	26%	16%	3%	3%	2%	1%
Weatheroffice	27%	36%	37%	48%	28%	13%	3%	1%	1%	0%
Recorded Weather Forecast Messages	28%	28%	50%	53%	14%	11%	2%	4%	2%	0%
Weather One-on-One	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Main achievements in improving service from a client-centred perspective:
Environment Canada strives to continually improve services to clients and to achieve more accurate forecasts and warnings. Over the year, for instance, the Department issued about 1.5 million public weather forecasts and 444,000 aviation forecasts, along with over 10,000 warnings of hazardous weather conditions like severe thunderstorms, tornadoes, heavy snowfall, or freezing rain.

Environment Canada's weather office website[33] continues to be the most popular Government of Canada information website and it has invested in improvements to internal processing and displays so that more users can now access and move around the website efficiently with minimal slowdowns. In addition, new products, such as the North American Ensemble Forecasting system, will aid users with activity plans. Similarly, much of Environment Canada's current data, including model output, full radar imagery and observational and forecast data is freely available on weather office. Since making these service improvements, the number of visitors has increased significantly while the visits are now averaging six plus minutes per visit.

Environment Canada's National Inquiry Response Team (NIRT), which was created in 2004 to handle all weather-related enquiries from citizens, continued to serve Canadians in 2006-2007.

[33] Weatheroffice: http://www.weatheroffice.gc.ca/canada_e.html

Reports from the NIRT are provided to senior management on a regular basis in order to factor into decisions on service improvements:

- Weather and climate related public feedback channelled through the NIRT system rose from an annual total of 16,000 to 17,000 in 2006-2007, a 6% rise in activity;
- NIRT's measurable quality objective is to provide a response to client feedback within two business days. For service delivery the average lag time for clients to receive a response from the NIRT system averaged 6.6 days at the start of the 2006-2007 and improved by 32% to 4.5 days by year's end;
- NIRT uses 4 categories to monitor client satisfaction. From the total volume 23% were complaints, 60% were inquiries, 6% were comments and 2% were suggestions; and
- The Department also measures appreciative comments and positive feedback after delivering a response or services in general; the results show that 10% of all public feedbacks received are positive.

Environment Canada continues to operate a user-pay 1-900 weather information line. During 2006-2007, there were approximately 35,000 calls for weather consultation, and in order to better serve Canadians, the Department has increased the hours of operation for this service.

Continuous improvement of the automated routine forecast production tool has enabled the weather forecasters to focus on high impact weather. Consistent performance measures for weather warnings across all Regions are being developed and will be made available on a quarterly basis. Temperature forecasts were accurate within +/-3 degrees 92% of the time on day one and 86% for day two. Canada typically ranks within the top five in the world when performance scores of numerical weather prediction (NWP) models are compared against those of other major NWP Centres. In addition, Environment Canada ensures that its strategic partners benefit from service improvements. For example, Environment Canada implemented a performance measurement system for Canadian Coast Guard Ice Services Partnership. Monthly and seasonal reports were provided to the Canadian Coast Guard on products and services provided, as well as giving an update on applied research and scientific activities. Future developments will include a database to generate reports in a timely manner, and to facilitate searches for statistics and trend data.

Environment Canada is also supporting international initiatives such as the International Polar Year (IPY). With more than 60 countries and 10,000 investigators participating in the IPY 2007-2009, Environment Canada is doing its part to help ensure the safety of field researchers in the Canadian North and the success of the scientific investigations. In addition to enhanced weather warnings and forecasts, Environment Canada's Canadian Ice Service (CIS) is providing specialized sea ice and iceberg information. The CIS also led the development of an international Ice Logistics Portal – a website where all of the national ice services are contributing ice information products to provide a convenient point of access to global sea ice and iceberg information for the IPY community. For more information, please visit CIS IPY website[34] or the Polar View IPY[35] ice portal.

[34] Canadian Ice Services: www.ice-glaces.ec.gc.ca
[35] Polar View: www.polarview.org

Table 15: Horizontal Initiatives

In 2006–2007 Environment Canada contributed to the following horizontal initiatives:

- An Accelerated Action Plan for Federal Contaminated Sites – FCSAAP (Succeeded by the Federal Contaminated Sites Action Plan (FCSAP), approved March 2005)
- Great Lakes Basin Ecosystem Initiative
- Canadian Group on Earth Observation
- Interim Strategy on Existing Climate Change Programs
- Implementation of the *Species at Risk Act*

Additional information on Environment Canada's horizontal initiatives can be found at: http://www.tbs-sct.gc.ca/rma/dpr3/06-07/index_e.asp.

Table 16: Travel Policies

Environment Canada follows the Treasury Board of Canada Secretariat Special Travel Authorities.

Environment Canada follows the Treasury Board of Canada Secretariat Travel Directive, Rates and Allowances.

SECTION IV: OTHER ITEMS OF INTEREST

Strategic Integration Activities

Clear, consistent, and integrated departmental policy advice, coordinated interactions with partners and stakeholders and effective communication are important tools to help Environment Canada deliver on its mandate and commitments.

Environment Canada is leading the development of federal strategies to integrate environmental sustainability into government-wide policy priorities in a concrete manner. As part of this work, the department is advancing a policy framework that recognizes the inextricable linkages between the environment, our economic competitiveness, and the health of Canadians.

Environment Canada's work to develop a unified departmental policy approach is organized into two program areas:

- Integrated policy advice, communications and information strategies enable effective decision-making; and
- Relations with other governments and partners are effectively managed in support of environmental priorities.

Integrated policy advice, communications, and information strategies enable effective decision-making

Environment Canada continues to play a leadership role on critical environmental issues that cut across numerous federal departments. For example, the department has successfully led a multi-departmental effort to develop a comprehensive environmental agenda focused on clean air and climate change that will improve the health of Canadians. The release of "Turning the Corner", which outlines the Clean Air Regulatory Agenda, was a major result for the Government. Over the last year, there has also been continued support for inter-departmental work on both water and conservation. A Deputy Ministers' Committee on Economic Prosperity, Environment and Energy, helps to ensure that the Government of Canada's environmental, economic and energy policy is comprehensive and reflects the views of all departments.

With the still-recent reorganization of much of Environment Canada's science and technology (S&T) into a new S&T Branch, the department has continued to advance its work on the strategic management of its S&T, the strengthening of linkages between science and policy, and the integration of federal S&T. The first-ever Departmental Science Plan was prepared and work on the inaugural Departmental Technology Plan continues. In order to strengthen science-based decision making in the department, Environment Canada has undertaken work to support policy analysts and other intermediaries acting as knowledge brokers at the science-policy interface. Seeking to enhance collaboration with other science performers and users, the department continues to develop the Atlantic Environmental Sciences Network (AESN) and to actively engage other science-based departments on strategic and science management issues through the Assistant Deputy Minister S&T Integration Board. Recognizing the value of federal leadership on S&T and the national innovation system, Environment Canada has provided input into the development of the government's S&T strategy.

Environment Canada continues to develop a broad environmental indicator and information strategy. This serves as a core policy tool to provide Canadians with more regular and consistent information on the state of the environment and how it is linked with human activities. As a component of this broad strategy, Environment Canada led, in partnership with Statistics Canada and Health Canada, the development and reporting of Canadian Environmental Sustainability Indicators. The report highlighted national states and trends over time of air quality, freshwater quality and greenhouse gas emissions. Key improvements in the 2006 report included the addition of the $PM_{2.5}$ air quality indicator, the calculation of the water quality indicator for selected northern monitoring sites, and an increased analysis of socio-economic context for the indicators.

Relations with other governments and partners are effectively managed in support of environmental priorities

Environment Canada undertook several initiatives in 2006-2007 to manage partnerships with Provincial, Territorial and Aboriginal governments and engage stakeholders in the government's environmental agenda. Consultations were undertaken with the Provinces and Territories, Aboriginal organizations, and other stakeholders to further advance the Government of Canada's environmental agenda, including initiatives to reduce greenhouse gas emissions and air pollutants and improved chemicals management. The department advanced many other intergovernmental environmental issues, such as municipal wastewater, environmental assessments and species at risk, under the auspices of the Canadian Council of Ministers of the Environment and the Canadian Council of Resource Ministers. The department was actively involved in the negotiation and implementation of the environmental components of Aboriginal self-government and comprehensive land claim agreements and the implementation of the *First Nations Land Management Act*. Environment Canada also worked towards streamlining internal policies that impact its relationships with partners and stakeholders, such as a policy framework for managing grants and contributions and departmental policies on Aboriginal consultations and public participation in decision-making.

Environment Canada continued its active involvement through multilateral and regional fora, as well as bilateral relationships with key countries to protect and promote Canada's environmental interests internationally. Multilaterally, the department led, inter alia, Canada's preparations for and participation in the 24th Governing Council of the United Nations Environment Programme (UNEP) and advanced Canadian objectives, notably on the need for global action on mercury. Environment Canada also played an active role in the process leading up to the G8 Leaders' Summit, including a G8 Environment Ministers meeting in advance of the Summit. The Department also continued playing an effective role within the Arctic Council both in terms of being a key resource on the significant environmental issues addressed at the Department of Foreign Affairs and International Trade and Indian and Northern Affairs Canada-led Ministerial meeting, and also in ongoing efforts within the Arctic Council to address issues such contaminants, biodiversity, and climate change. It continued its active role in and developed a strategy for more effective engagement with the Organization for Economic Cooperation and Development.

Bilaterally, the Department moved towards, within the Free Trade Agreement context, finalizing environmental cooperation agreements with South Korea and Singapore. In addition, the

Department has maintained relations with selected countries or regions (including China, India, the European Union, Australia, the U.S., Sweden, Norway and Germany) focused on promoting the government's environmental policy objectives related to clean air, climate change and toxics. The Department also completed a number of successful bilateral projects through the Montreal Protocol's bilateral program to help phase out ozone depleting substances in select developing countries.

At the regional level, Environment Canada has worked to improve the environment and quality of life of North Americans through specific initiatives under the Security and Prosperity Partnership and the North American Commission for Environmental Cooperation. Given our geographic ties, shared economies, air-sheds and species, Canada continues to strengthen its collaboration with the U.S. in such areas as joint stewardship of shared resources (e.g. the Great Lakes), sharing best practices, as well as collaborating on science and technology.
A key announcement, during Minister Baird's Washington trip in April 2007, was that Canada and the U.S. would be negotiating a Particulate Matter Annex to the Canada-U.S. Air Quality Agreement. Numerous studies have linked particulate matter, especially fine particulate matter, to cardiac and respiratory diseases such as asthma, bronchitis and emphysema, and to various forms of heart disease.

Education and Engagement

The long term result of education and engagement activities is to create changes in human behaviour and decision-making to support delivery of the Department's goal of environmental quality that enhances health, well-being, and competitiveness. Education and engagement work has focused on delivering an approved strategic and disciplined approach to engagement that is driven by research and aligned with the department's results structure.

A review of Community Funding Programs and a Community Funding Program Umbrella Logic Model with performance indicators and specific tools were completed to improve alignment with departmental results, increase efficiency, and improve service to clients. These initiatives will begin implementation over 2007-2008.

A repositioning strategy and business plan for the Biosphere focused on the establishment of a unique Canadian Environmental Museum and the creation of a National Centre of expertise for Environmental Education and Engagement.

An integrated education and engagement specialists' working group produced an inventory and analysis of departmental education and engagement products outlining best practices and proposed investment areas to coordinate development of new products and tools.

A Public Reporting Strategy on the National Pollutant Release Inventory (NPRI) and the Criteria Air Contaminants Comprehensive Emissions Inventories based on a series of recommendations is being implemented. The information products with integrated contextual information, targeted to NPRI's audiences, respond directly to advice from NPRI clients.

Corporate Services and Corporate Management Activities

Department-wide Services

Environment Canada continues to revise and improve its overall approach to priority setting and resource allocation. The more integrated approach aligns planning, priority-setting and resource allocation functions to the new Program Activity Architecture. This approach significantly enhances the overall transparency of proposed plans and priorities enabling senior executive direction, engagement, and strategic decision-making.

Priority Management Boards comprised of Assistant Deputy Ministers and Regional Director Generals assess priorities for activities across the department and make recommendations to the senior decision-making groups. The Priority Management Boards consist of Ecosystem Sustainability, Weather and Environmental Services and Environmental Protection. The Boards are supported by two "enabling" boards, which include Strategic Integration and Departmental Management Services.

Senior managers undertake business planning through results-based committees and teams. Managers at all levels from across the department are engaged in the process to ensure consistent application of planning and reporting requirements.

Environment Canada is an early adopter of the Corporate Administrative Shared Services (CASS) initiative to ensure the delivery of essential financial, administrative, human resources, corporate management, and information management technology services address mission critical, operational and key governance needs across the department.

Information Management and Information Technology (IM-IT)

Accountable management of resources for results:
The Chief Information Officer Branch (CIOB) continued the transition from the decentralized organizational structures to a single, integrated organization delivering IM and IT functions to Environment Canada. This transition was announced in 2004 and continues as a multi-year effort. The Branch has already been able to make strides towards delivering more effective, efficient and equitable levels of IM-IT services to all areas of the department.

Among the highlights in 2006-2007 was the creation of a department-wide IM Strategy, which will guide the creation of a governance model for the effective and efficient management of departmental information. Implementation of this model will begin in 2007-2008 with several small "quick win" projects to demonstrate the utility of the model and will be consistent with Government of Canada policies and practices of information management.

Environment Canada's programs are all heavily dependent on information. This includes the gathering, transmission, storage, manipulation, archiving and disposal of data by using technology services centrally managed by CIOB. CIOB plays the key leadership role in ensuring that IM and IT resources are efficiently and effectively used in all areas of the department to ensure program delivery. CIOB services include maintaining the operations of a complex matrix

of hardware, software and network infrastructure in support of the department's 24/7 mission-critical activities.

As part of its on-going support to the Weather and Environmental Sustainability and Science and Technology programs, CIOB completed significant upgrades to both the Supercomputer in Montreal and a related data file storage system, increasing performance and capacity, respectively.

Maintaining operations while implementing a transition to a new operating model presents several challenges to the CIOB and the department as a whole. CIOB has been able to show some early successes in its transition by leveraging best practices in parts of the Branch for wider benefits. As an example, the use of a Software Management Board to guide the efficient and effective management of software in support of Environment Canada's mission-critical weather programs will be expanded to facilitate the management of software at the departmental level.

Major programs and initiatives:

Efforts continue to ensure that Environment Canada's IM-IT systems and activities are integrated, effective and consistently improved and adapted to meet client needs.

Progress in 2006-2007:

- CIOB continues to manage control and oversight of IM-IT activities in the department;
- Work continues to promote consistency of operations, to move to common standards, technologies and processes to provide consistent service to staff across the department;
- Availability of the department's hardware, software and network infrastructure maintained at a very high level, especially in support of the department's mission-critical activities;
- Creation of a departmental Information Management Strategy to create a governance model for IM and realize efficiencies throughout Environment Canada;
- Upgrades to Environment Canada's supercomputer facility in Dorval significantly improved the performance of the supercomputer and the capacity of a large data storage facility. In addition, service to the department's Weather and Environmental Sustainability programs and its Science and Technology areas were improved;
- Efficiencies have been and will continue to be found (e.g. a Request for Volume Discount process to acquire desktop or laptop produces significant savings for the department, while promoting more effective life cycle management of departmental assets);
- Creation of a departmental Software Management Board;
- Network infrastructure upgraded to better meet departmental requirements; and
- Innovations in service delivery to bring product and services directly to clients' workplaces (e.g. videoconferencing, availability of electronic-journals).

Audit and Evaluation

The department's Audit and Evaluation functions play an important role in the area of improving the effectiveness and efficiency of departmental policies, programs, and management. In 2006-2007, Environment Canada undertook a number of activities to strengthen the internal audit and evaluation functions. These included the provision of active leadership in the implementation of the Treasury Board Secretariat (TBS) *Policy on Internal Audit* and the development of the new evaluation policy, which is expected to come into force in the spring of 2008.

The department laid the foundation to deliver the requirements of the new TBS *Policy on Internal Audit* by developing an implementation action plan, identifying candidates for the new External Advisory Audit Committee to become operational on April 1, 2008, and began planning work to provide an annual holistic opinion to the Deputy Minister. To facilitate the achievement of TBS Policy objectives, the department created a Strategic Planning and Coordination unit, and will continue to develop tools and measures to enhance the quality of the Branch's services.

Measures were also undertaken to strengthen the evaluation function through the establishment of stronger linkages with departmental Boards. The goal of these measures are to enable the early involvement in program design, the development of Treasury Board submissions, the development of a brochure to raise awareness and increase understanding of program evaluation.

Integrated Departmental Enforcement

Environment Canada's policy and program initiatives require credible backstops to compel compliance with the law where voluntary behaviour change encouraged through program incentives, education and compliance promotion is not occurring, or not meeting identified goals. A credible capacity to enforce regulations and legislation in a fair, predictable and consistent manner is required to protect Canadians and the environment, and ensure a level playing field for those subject to regulation.

Continued integration of the two previously distinct enforcement programs while continuing to ensure that enforcement activities are delivered to the highest standards was a high priority during this reporting period. It is expected that within a short timeframe, certain synergies and economies of scale will be realized within the program, especially in areas of training, standards and operational policy development. Continuously improved management accountability associated with the integration of the two programs will provide the following:

- Greater ability to respond quickly and effectively to emerging situations;
- Streamline planning and decision-making functions;
- Provide a degree of separation between Environment Canada policy and programs and the enforcement function;
- Enable more consistent and predictable application of Environment Canada administered legislation across Canada; and
- Effective mitigation and management of risks and potential liabilities associated with administering the enforcement function.

As part of the federal Budget 2007, a commitment was made to increase the department's

complement of Enforcement Officers by 50% over two years (2007-2008 and 2008-2009) in order to more effectively and efficiently fulfill the environment and wildlife protection law enforcement function. Delivering on this commitment will be a high priority for the next two planning and reporting periods.

Human Resources Branch

The department has embarked on the implementation of a proposed new Human Resources Management System, PeopleSoft version 8.9 in the context of the proposed Corporate Administrative Shared Services initiative (CASS). Plans are underway to migrate to the new system towards the end of fiscal year 2008-2009.

The Human Resources Branch has begun to set-up a reporting function that will also proceed with the further development and implementation of a monitoring and performance measurement framework. These will assist human resources management to meet its results-based objectives and its central agency requirements and commitments.

Values, Integrity and Disclosure

Over the past few years, a renewed commitment to values and ethics in organizations found expression in greater focus on formal values and ethics programs and on compliance with regulations in government departments. Public servants of all levels and managers in particular were expected to be guided in their work by high ethical standards. The *Federal Accountability Act* sets even higher standards by promoting greater accountability and transparency in the government's management practices.

Environment Canada became in 2006-2007 one of the leading departments developing formal values and ethics programs. The mandate of the new program, Values, Integrity and Disclosure is to enable the department's managers and employees in achieving the organizational objectives by supporting management processes and daily practices that strengthen ethical conduct and curb ethical breaches. The program Director is also the designated senior officer as per the Policy on *Internal Disclosure of Information Concerning Wrongdoing in the Workplace* and the designated senior official for the Values and Ethics Code for the Public Service (Code). In its first year of operation the program provided results and services in the following areas:

Values and ethics service development and research

The foundations of a values and ethics program were established: positions were staffed, a three year action plan was developed and discussions with senior management on values and ethics in management practices were regularly held. Also, a Values and Ethics survey was designed and administered. Environment Canada is one of the very first departments to survey its employees on values and ethics. The survey results will be used to address specific needs and in the design of an integrity index for the department.

Promotion and Prevention

The *Values and Ethics Code for the Public Service of Canada* was promoted through awareness sessions at management meetings and through strategic advice on its application to senior

managers. Tools to support employees and managers in integrating values and ethics in daily work were developed and distributed, such as a decision making model when facing an ethical situation. A web site was designed, launched and several program information notes were sent, to all employees, by the Deputy Minister. Topics included: the disclosure process; employee responsibilities in the area of political activities; and conflict of interest. Several notes to employees regarding the Code and public servants duties in the area of political activities were sent out by the Assistant Deputy Minister.

Values and Ethics risk management
Preparation for the implementation of the *Public Servants Protection Disclosure Act* was taken. Also, preliminary work for the development of a Values and Ethics monitoring and reporting system was initiated.

In its first year of operation, Values, Integrity and Disclosure developed the program's basic components: building capacity, increasing awareness, establishing processes and assessing needs. The program was successful in establishing high credibility amongst management and employees who both used its services and provided feedback. In 2007-2008, the program will focus again on increasing awareness of values and ethics dimensions in everyday work and on reducing ethical risks. The program will also seek and use opportunities to include values and ethics in new departmental management instruments such as new policies or systems and processes.

Communications

The Communications Branch provides effective and timely communication of environmental priorities to ensure Canadians are informed of and understand the department's agenda. In 2006-2007, the branch took a proactive approach to support Environment Canada's programs and policies, in addition to the government-wide ecoAction Plan. As Canadians overwhelmingly identified the environment as their number one concern, the Branch took the lead-role to work with other government departments to inform Canadians about the government's environmental initiatives.

On March 13, 2007, Environment Canada's new national Web site became fully operational. The site incorporates Treasury Board Secretariat's new Common Look and Feel standards for the Web and makes considerable progress toward integrating the department's Web content into an easy-to-use information tool.

The Communications Branch sought Canadians' views on the information and services Environment Canada provides. The department's research focused on important issues for Canadians such as chemicals and toxic substances, climate change, clean air, and meteorology.

Of particular note, the Meteorological Service of Canada conducted its benchmark Products and Services survey, as well as large-scale research on air quality. As the information become available, the results of these research projects can be accessed through the Public Opinion Research Reports website.[36]

[36] Government of Canada, Public Opinion Research Reports: http://www.por-rop.gc.ca/

Key Electronic Resources

Adaptation and Impacts Research Group	http://www.msc-smc.ec.gc.ca/airg/index_e.cfm
Air Quality Services	http://www.msc-smc.ec.gc.ca/aq_smog/index_e.cfm
Atlantic Coastal Action Program	http://atlantic-web1.ns.ec.gc.ca/community/acap/
Atmospheric and Climate Science Directorate	http://www.msc-smc.ec.gc.ca/acsd/index_e.html
Atmospheric Hazards	http://www.hazards.ca/
Biosphere	http://www.biosphere.ec.gc.ca
Canadian Biodiversity Information Network (CBIN)	http://www.cbin.ec.gc.ca/index.cfm
Canadian Environmental Sustainability Indicators	http://www.environmentandresources.gc.ca/default.asp
Canadian Wildlife Service (CWS)	http://www.cws-scf.ec.gc.ca/index_e.cfm
Canadian Wind Energy Atlas	http://www.windatlas.ca/en/index.php
CEPA Environmental Registry	http://www.ec.gc.ca/CEPARegistry/default.cfm
Chemicals website	http://www.chemicalsubstanceschimiques.gc.ca/
Climate Change Scenarios Network	http://www.ccsn.ca/
Climate Services	http://www.climate.weatheroffice.ec.gc.ca/climateData/canada_e.html
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	http://www.cites.ec.gc.ca/eng/sct0/index_e.cfm
Criteria Air Contaminants	http://www.ec.gc.ca/pdb/cac/
CWS Ecological Gifts Program	http://www.cws-scf.ec.gc.ca/egp-pde/default.asp
CWS Enforcement Branch	http://www.cws-scf.ec.gc.ca/enforce/index_e.cfm
CWS Habitat Stewardship Program for Species at Risk	http://www.cws-scf.ec.gc.ca/hsp-pih/
Ecological Monitoring and Assessment Network Northern Ecosystem Initiative	http://www.pnr-rpn.ec.gc.ca/nature/ecosystems/nei-ien/index.en.html
Ecosystem Initiatives	http://www.ec.gc.ca/ecosyst/backgrounder.html
Environment Canada	http://www.ec.gc.ca/default.asp
Environment Canada 2003-2012 Strategic Plan	http://www.msc-smc.ec.gc.ca/acsd/publications/StrategicPlan_2003_2012/strategic_plan_2003-2012_full/strategic_plan_full_e.pdf
Environment Canada's Audit and Evaluation	http://www.ec.gc.ca/ae-ve/
Environment Canada's Science Plan	http://www.ec.gc.ca/scitech/
Environment Canada's Sustainable Development Strategy 2007–2009	http://www.ec.gc.ca/sd-dd_consult/SDS2007/index_e.cfm
Environmental Acts and Regulations	http://www.ec.gc.ca/EnviroRegs/ENG/Default.cfm
Environmental Assessment Program	http://www.eman-rese.ca/
Environmental Damages Fund	http://atlantic-web1.ns.ec.gc.ca/edf/
Formative Evaluation of Federal Species at Risk Programs	http://www.ec.gc.ca/ae-ve/default.asp?lang=En&n=F2F5FD59-1
Georgia Basin Action Plan	http://www.pyr.ec.gc.ca/georgiabasin/index_e.htm
Great Lakes Basin Ecosystem Initiative	http://www.on.ec.gc.ca/greatlakes/
Meteorological Services of Canada – Atmospheric Monitoring And Water Survey	http://www.msc-smc.ec.gc.ca/msc/amwsd_e.html
Meteorological Services of Canada - Weather	http://www.msc-smc.ec.gc.ca/weather/contents_e.html
National Climate Data and Information Archive	http://climate.weatheroffice.ec.gc.ca/Welcome_e.html
National Pollutant Release Inventory	http://www.ec.gc.ca/NPRI-INRP-COMM/
National Pollutant Release Inventory	http://www.ec.gc.ca/npri-inrp-comm/
St. Lawrence Plan	http://www.planstlaurent.qc.ca
The Weather Office	http://weatheroffice.gc.ca
Water Survey of Canada	http://www.wsc.ec.gc.ca/
Weather observations, forecasts and warnings	http://www.weatheroffice.gc.ca/canada_e.html
Western Boreal Conservation Initiative	http://www.pnr-rpn.ec.gc.ca/boreal